TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

MEETING MATERIALS

June 6, 2012

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

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TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

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Letter of Transmittal

TO: Toll Bridge Program Oversight Committee (TBPOC)

DATE: May 30, 2012

FR: Program Management Team (PMT)

RE: TBPOC Meeting Materials Packet – June 6, 2012

Herewith is the TBPOC Meeting Materials Packet for the June 6th meeting. The packet includes memoranda and reports that will be presented at the meeting. A Table of Contents is provided following the Agenda to help locate specific topics.

TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

Final Agenda

TBPOC MEETING
June 6, 2012, 12:00pm – 1:30pm
1120 N Street, Sacramento
TBPOC-PMT pre-briefing: 12:00pm – 12:30pm
TBPOC meeting: 12:30pm – 1:30pm

	Topic	Presenter	Time	Desired Outcome
1.	**CHAIR'S REPORT**	S. Heminger, BATA	5 min	Information
2.	**CONSENT CALENDAR** a. TBPOC Meeting Minutes: 1) May 3, 2012 Conference Call Minutes* 2) May 28, 2012 Conference Call Minutes* b. Contract Change Orders (CCO): 1) Self-Anchored Suspension (SAS) CCO 213 (Quality Control)* 2) Yerba Buena Island Transition Structures (YBITS) No. 1 CCO 21-S2 (Additional Funds for Storm Water Pollution Prevention)* 3) Yerba Buena Island Transition Structures (YBITS) No. 1 CCO 68-S1 (Additional Funds for Frame 2 Elevator Operation)*	A. Fremier, BATA D. Noel, CTC		Approval Approval
3.	**PROGRESS REPORTS** a. TBSRP Project Progress and Financial Update May 2012**	A. Fremier, BATA	5 min	Approval
4.	**PROGRAM ISSUES** a. Bridge Safety and Security* b. Bridge Opening c. Gateway Park – Army Land Transfer Letter* d. Foundation Inspections Update	T. Anziano, CT S. Maller, CTC S. Maller, CTC T. Anziano, CT	15 min 15 min 5 min 5 min	Information Information Approval Information
5.	**SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES** a. Corridor Update*	T. Anziano, CT	10 min	Information
6.	**ANTIOCH/ DUMBARTON BRIDGE SEISMIC RETROFIT UPDATES** a. Updates*	M. Forner, CT	5 min	Information
7.	**OTHER BUSINESS**			

Next TBPOC Meeting: July 5, 2012, 10:00am – 1:00pm
325 Burma Road, Oakland, CA

* Attachments
** Attachments at end of binder
*** Attachments forthcoming

TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

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Table of Contents

TBPOC MEETING
June 6, 2012

* Attachments
** Stand-alone document included in the binder
*** To be sent under separate cover

ITEM 1: CHAIR'S REPORT

No Attachments

TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE
CALTRANS · BAY AREA TOLL AUTHORITY · CALIFORNIA TRANSPORTATION COMMISSION

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** May 30, 2012

FR: Andrew Fremier, Deputy Executive Director, Operations, BATA/MTC

RE: Agenda No. - 2a1

Item- Consent Calendar
TBPOC Meeting Minutes
May 3, 2012 Conference Call Minutes

Recommendation:
APPROVAL

Cost:
N/A

Schedule Impacts:
N/A

Discussion:
The Program Management Team has reviewed and requests TBPOC approval of the May 3, 2012 Conference Call Minutes.

Attachment(s):
May 3, 2012 Conference Call Minutes

TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

CONFERENCE CALL MINUTES

May 3, 2012, 10:30am – 11:00am

Attendees: TBPOC Members: Steve Heminger (Chair), Bimla Rhinehart and Malcolm Dougherty
PMT Members: Tony Anziano, Andrew Fremier, and Stephen Maller
Participants: Michele DiFrancia, Beatriz Lacson, Peter Lee, Bijan Sartipi, Jon Tapping, Ken Terpstra, and Jason Weinstein

Convened: 10:37 AM

Items	Action
1. CHAIR'S REPORT o N/A	
2. CONSENT CALENDAR a. TBPOC Meeting Minutes 1. April 17, 2012 Meeting Minutes	• The TBPOC **APPROVED** the Consent Calendar, as presented.
3. PROGRESS REPORTS a. Risk Management Briefing First Quarter 2012 • J. Tapping noted that he had forwarded copies of the 1st quarter 2012 risk management report for TBPOC information, and summarized the risk management results for the 1st quarter 2012, including adequacy of reserves and a look ahead to 2nd quarter 2012. Highlights included: o Risk management quantification saw a $40 million reduction which reflects optimism in the schedule (as resulted from cable installation progress and transfer of Hinge K risk to ABF). o The 50% probable schedule risk to seismic safety opening (SSO) was reduced by approximately three months, which bodes well for a potential bridge opening sooner than Labor Day	

Items	Action
2013. o There are enough funds in the Program Contingency to cover the cost of currently identified risks. o Efforts continue to reduce uncertainties and mitigate SAS delay risks; there is the probability to do better. o The cost of all potential corridor improvements (Watch List) may significantly impact the potential draw on program contingency. Before acting on any of the Watch List items, staff will present to the TBPOC for approval, which will be accompanied by detailed cost and schedule information. ➢ The Chair noted that "Light pipe", which was not approved by the TBPOC at its April meeting, should be removed from the Watch List.	• Staff to remove "Light pipe" from the Risk Management Watch List.
b. 2012 First Quarter Project Progress and Financial Update Proposed Final • P. Lee requested TBPOC approval of the 2012 first quarter report which was forwarded to the TBPOC under separate cover. o The report includes the outcome of the Peer Review Panel work, Dumbarton Memorial Day 2012 closure, and risk management update. Minor edits were suggested.	• The TBPOC **APPROVED** the 2012 First Quarter Project Progress and Financial Update.
4. PROGRAM ISSUES a. Bay Bridge East Span Opening Update • The Chair reported that he met with two Bay Bridge Alliance (BBA) representatives yesterday about the status of the Memorandum of Understanding (MOU) between the TBPOC and the BBA Regarding the East Span Opening Project. o The latest version of the MOU was sent to the TBPOC and PMT members for reference and discussion. o Discussion items included: clarification of changes/crossed out provisions in the	

Items	Action
MOU, cost and encroachment permit language, TBPOC attendance at BBA meetings. o The Chair indicated that the edits are not controversial. After Department and CTC review and receipt of comments by next Tuesday, the MOU will be circulated to BBA for closure. o In response to S. Maller's suggestion to create a liaison committee to coordinate communication between the BBA and TBPOC regarding bridge opening efforts, the Chair delegated this task to the PMT.	• The PMT to create a liaison committee with BBA to coordinate bridge opening efforts.
5. SANFRANCISCO-OAKLAND BAY BRIDGE UPDATES a. Corridor Update/Schedule • T. Anziano re-affirmed the schedule changes reported by J. Tapping in Item 3a above, and added the following: o The Oakland Touchdown (OTD) No. 2 contract has been executed and the contractor is on board. o Recent schedule gains have been made in cable erection and compaction. o The YBITS2/cantilever demolition contract was advertised, and bids will be opened in September 2012. • M. Dougherty noted that he has held meetings with Department staff concerning the foundation inspections on the Benicia Bridge, Richmond Bridge and West Approach projects, and will provide an update at the TBPOC June meeting.	
6. OTHER BUSINESS • Regarding Dumbarton Bridge Memorial Day 2012 closure, the TBPOC will make time for a conference call should it be required. • M. Dougherty took the opportunity to compliment B. Sartipi and his team for	

Items	Action
a job well done on the recent Doyle Drive closure. • The next TBPOC meeting is on June 7, 2012, 1:00pm – 4:00pm, in Sacramento.	

Adjourned: 11:03 AM

TBPOC CONFERENCE CALL MINUTES
May 3, 2012, 10:30am – 11:00am

APPROVED BY:

_____ _____
STEVE HEMINGER, TBPOC Chair Date
Executive Director, Bay Area Toll Authority

_____ _____
BIMLA G. RHINEHART, TBPOC Vice-Chair Date
Executive Director, California Transportation Commission

_____ _____
MALCOLM DOUGHERTY Date
Director, California Department of Transportation

TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS | BAY AREA TOLL AUTHORITY | CALIFORNIA TRANSPORTATION COMMISSION

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** May 30, 2012

FR: Andrew Fremier, Deputy Executive Director, Operations, BATA/MTC

RE: Agenda No. - 2a2

Item- Consent Calendar
TBPOC Meeting Minutes
May 28, 2012 Conference Call Minutes

Recommendation:
APPROVAL

Cost:
N/A

Schedule Impacts:
N/A

Discussion:
The Program Management Team has reviewed and requests TBPOC approval of the May 28, 2012 Conference Call Minutes
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Attachment(s):
May 28, 2012 Conference Call Minutes

TOLL BRIDGE PROGRAM
OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

CONFERENCE CALL MINUTES

May 28 2012, 4:00pm – 4:30pm

Attendees: TBPOC Members: Steve Heminger (Chair), Bimla Rhinehart and Malcolm Dougherty
PMT Members: Tony Anziano, Andrew Fremier, and Stephen Maller
Participants: Michele DiFrancia, Mike Forner, Beatriz Lacson, Rick Land, Jon Tapping, and Jason Weinstein

Convened: 4:02 PM

Items	Action
1. CHAIR'S REPORT • N/A	
2. SANFRANCISCO-OAKLAND BAY BRIDGE UPDATES a. Yerba Buena Island Transition Structures (YBITS) No. 2 Addendum No. 3 • T. Anziano presented Addendum No. 3 for TBPOC approval. The addendum, as described in the memo and table provided, lists technical changes, as differentiated from Addendum No. 2 which dealt with bidder dates. o In response to the Chair's queries, it was noted that "Light Pipe Revisions" pave the way for a possible installation should that be decided in the future; and U. S. Coast Guard requirements are also addressed in the addendum.	• The TBPOC APPROVED YBITS2 Addendum No. 3, as presented.
3. DUMBARTON BRIDGE SEISMIC RETROFIT PROJECT a. Memorial Day Weekend Full Closure Update • M. Forner reported that the Dumbarton Bridge closure work is going smoothly. The Shimmick crew is doing an outstanding job.	

Items	Action
o Concrete pour in six locations are scheduled between 6:00pm and 8:00pm today. This is expected to go well, as there is minimal risk involved. o The bridge is scheduled to reopen at 5:00am, Tuesday, May 29. After pouring, stripping and cleaning (in two-hour increments) are completed, a 2:00am reopening is possible. This time will be more definitive by 8:30pm when concrete pour result(s) will be available. • M. Forner thanked Nader Eshghipour and his maintenance team for their help during the bridge closure.	
4. OTHER BUSINESS a. Sacramento Bee Bay Bridge Article • The Chair requested Department update regarding another Sacramento Bee article on Bay Bridge foundation inspections published over the weekend. o M. Dougherty reported that a meeting with the agency secretary and staff is scheduled at 9:00am tomorrow to discuss the points and counterpoints to this article, in preparation for a potential press conference on Tuesday (May 29) or Wednesday (May 30). o Discussion items included news article background, crosshole sonic testing on Pile 3 and Pile 8, testing requirements/procedure, contractor role; references to Benicia and West Approach, status of Peer Review Panel work, panel review completion forecast, panel partiality issue, panel composition/term limits, possible new candidates. o The Chair suggested continuing this discussion at the TBPOC June 6 meeting. M. Dougherty indicated that he will provide the committee a pre-meeting update.	• Staff to include an update on the Peer Review Panel work (on Benicia, Richmond and West Approach projects) at the TBPOC June 6 meeting. • Staff to provide names of potential candidates for the Peer Review Panel at the TBPOC June 6 meeting.

Items	Action
• The next TBPOC meeting is on June 6, 2012, 12:00pm – 1:30pm, in Sacramento.	

Adjourned: 4:30 PM

TBPOC CONFERENCE CALL MINUTES
May 28, 2012, 4:00pm – 4:30pm

APPROVED BY:

_____ _____
STEVE HEMINGER, TBPOC Chair Date
Executive Director, Bay Area Toll Authority

_____ _____
BIMLA G. RHINEHART, TBPOC Vice-Chair Date
Executive Director, California Transportation Commission

_____ _____
MALCOLM DOUGHERTY Date
Director, California Department of Transportation

TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE
CALTRANS · BAY AREA TOLL AUTHORITY · CALIFORNIA TRANSPORTATION COMMISSION

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** May 30, 2012

FR: Dina Noel, Assistant Deputy Director, Toll Bridge Program, CTC

RE: Agenda No. - 2b1

Item- Consent Calendar – Contract Change Orders (CCOs)
Self-Anchored Suspension (SAS) CCO 213 – Quality Control (QC)

Recommendation:
APPROVAL

Cost:
$3,006,616.00

Schedule Impacts:
N/A

Discussion:

CCO 213 in the amount $3,006,616.00 will provide additional funds for QC efforts performed by American Bridge / Fluor Enterprises (ABF) Inc., a Joint Venture, during fabrication at ZPMC in China including extra work associated with the change control process needed to develop and establish the final designs on CCOs 43, 44, 55, 73, 83, 85, 86, 93, 94, 98, 99, 118, 120, 159, 172, and 182.

CCO 160, executed on September 22, 2010, resolved costs and time incurred for issues related to the development of shop drawings, impacts to East End OBG fabrication at ZPMC, and acceleration of construction operations, and excluded payments for direct QC efforts and all other direct costs for CCOs 43, 44, 55, 73, 83, 85, 86, 93, 94, 98, 99, 118, 120, and 159. CCOs 172 and 182 were initiated after execution of CCO 160, thus not addressed or included in CCO 160.

Based on the original schedule, ABFJV would have completed QC associated with fabrication work prior to January 2010. The additional ABF direct QC costs were primarily expended in the January 2010 to December 2011 time period. During this time, fabrication work was placed on standby or reduced production while design changes for the above-listed change orders were in progress. To minimize schedule impacts, trained and highly qualified QC personnel were kept on site during the delay periods. To pay the contractor for inefficiency costs incurred during this operation, the Department has determined the contractor is entitled to recover $3,006,616.00.

Risk Management:

In the 2011 Q3 Risk Management Report a risk was established to address ABF's quality control efforts on change orders that were excluded or identified after CCO 160 was executed. The risk was identified as "CCO-ID ABF-China". In the 2011 Q4 report the risk was re-quantified and the register has been carrying a range of $600,000.00 to $6,500,000.00. The cost of this change is below the 50% probable risk value of $3,550,000.00.

Attachment(s):

1. Draft CCO: 213
2. Draft CCO Memo: 213

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 213 Suppl. No. 0 Contract No. 04 – 0120F4 Road SF-80-13.2/13.9 **FED. AID LOC.:**

To: **AMERICAN BRIDGE/FLUOR ENTERPRISES INC A JOINT VENTURE**

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract. ***NOTE: This change order is not effective until approved by the Engineer.***

Description of work to be done, estimate of quantities and prices to be paid. (Segregat d price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipme for idle time. This last percentage shown is the net accumulated increase or decrease from the original quant

DRAFT

Extra Work at Lump Sum:

Provide additional compensation for Quality Control (QC) efforts performed by American Bridge / Fluor Enterprises Inc., A Joint Venture (ABF) during fabrication at ZPMC in China, including extra work associated with the change control process needed to develop and establish the final designs, on Contract Change Orders 43, 44, 55, 73, 83, 85, 86, 93, 94, 98, 99, 118, 120, 159, 172, and 182.

This agreed lump sum compensation also provides for full and complete settlement of all inefficiencies, delays, and other impacts associated with extra work at ZPMC identified in the CCOs listed above.

For this work, the Contractor will receive the agreed lump sum. This sum constitutes full and complete compensation for furnishing all labor, material, tools and incidentals including all markups by reason of this change.

Extra Work at Lump Sum.....$3,006,616.00

Estimated Cost: Increase ☒ Decrease ☐ $3,006,616.00

By reason of this order the time of completion will be adjusted as follows: 0 Days

Submitted by

Signature	**Resident Engineer**		
		William Casey, Supervising T.E.	**Date**

Approval Recommended by

Signature	**Program Manager**		
		William Casey, Supervising T.E.	**Date**

Engineer Approval by

Signature	**Program Manager**		
		Tony Anziano, Program Manager	**Date**

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

Contractor Acceptance by

Signature	(Print name and title)	**Date**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CONTRACT CHANGE ORDER MEMORANDUM

DC-CEM-4903 (OLD HC-39 REV. 6/93) CT# 7541-3544-0

DATE: May 21, 2012

TO: William Casey	FILE: **04-0120F4** 04-SF-80-13.2, 13.9
FROM: Darryl Schram, Senior T.E.	
CCO NO. **213** / SUPPLEMENT NO. **0** / CATEGORY CODE	CONTINGENCY BALANCE (including this change)
$3,006,616 INCREASE ☒ DECREASE ☐	HEADQUARTERS APPROVAL REQUIRED? YES ☒ NO ☐
SUPPLEMENTAL FUNDS PROVIDED: $ 0.00	IS THIS R… ST… CO… ANC… ENVIRON… … S? YES ☒ NO ☐

DRAFT

CCO Description: ABF Fabrication QC Direct Cost

THIS CHANGE ORDER PROVIDES FOR:

Additional compensation for Quality Control (QC) efforts performed by American Bridge / Fluor Enterprises Inc., A Joint Venture (ABF) during fabrication at ZPMC in China, including extra work associated with the change control process needed to develop and establish the final designs, on Contract Change Orders 43, 44, 55, 73, 83, 85, 86, 93, 94, 98, 99, 118, 120, 159, 172, and 182.

Contract Change Order (CCO) 160, executed on September 22, 2010, resolved costs and time incurred for issues related to the development of shop drawings, impacts to East End OBG fabrication at ZPMC, and also includes acceleration of construction operations to mitigate delays. CCO 160 excluded payments for direct Quality Control efforts and all other direct costs for CCOs 43, 44, 55, 73, 83, 85, 86, 93, 94, 98, 99, 118, 120, and 159. Since CCOs 172 and 182 were initiated after CCO 160 was executed they are also not addressed or included in CCO 160.

The additional ABF direct QC costs were primarily expended in the January 2010 to December 2011 time period. Based on the original schedule, ABFJV would have completed QC associated with the fabrication work impacted by the above listed change orders prior to January 2010. Fabrication work, impacted by the change orders, was placed on standby or reduced production while extra change order work was under design development. Fabrication work resumed during the January 2010-December 2011 time period, although design changes were ongoing. Many trained and highly qualified QC personnel would have departed or been redirected to other ZPMC projects had the delays not been incurred. Re-staffing trained and qualified QC personnel after the delay period would have introduced additional schedule risk. Therefore, it was in the best interest of the project to retain the trained and highly qualified QC personnel during the delay periods even though this was an inefficient use of the personnel.

In the 2011 Q3 Risk Management Report a risk was established to address ABF's quality control efforts on change orders that were excluded or identified after CCO 160 was executed. The Risk was identified as "CCO-ID ABF-China". In the 2011 Q4 report the risk was re-quantified and the register has been carrying a range of $600K to $6.5M. The cost of this change is below the 50% probable risk value ($3.55M).

For this work the Contractor will be paid the lump sum amount of $3,006,616.00 for this change, which can be financed from the contingency fund. A detailed costs analysis is on file. No time adjustment is warranted as this change order does not affect the controlling operation.

This change order will obtain concurrence from William Casey (Supervising TE), Tony Anziano (Program Manager), Ken Terpstra (Proj. Manager), and Rich Foley (HQ Oversight). Design and Maintenance concurrence are not required.

This change order is pending approval from the Toll Bridge Program Oversight Committee (TBPOC). The Resident Engineer requests an Authority To Proceed (ATP) from HQ Division of Construction for this change order.

CONCURRED BY:	DATE
STRUCTURE REPRESENTATIVE William Casey	DATE
SR. BRIDGE ENGINEER	DATE
FHWA REPRESENTATIVE	DATE
PROJECT ENGINEER Ken Terpstra	
OTHER (SPECIFIY) Rich Foley	
	DATE
DISTRICT PRIOR APPROVAL BY	DATE

This part updated by CadB

ESTIMATE OF COST	THIS REQUEST	TOTAL TO DATE
ITEMS		
FORCE ACCOUNT		
AGREED PRICE	$0.00	$0.00

FEDERAL PARTICIPATION

…S ☐ PARTICIPATING IN PART ☒ NONE

…ATING (MAINTENANCE) ☐ NON-PARTICIPATING

…ATION (IF MORE THAN ONE FUNDING SOURCE OR P.I.P. TYPE)

☐ CCO FUNDED PER CONTRACT ☐ CCO FUNDED AS FOLLOWS

FEDERAL FUNDING SOURCE	PERCENT

HQ (ISSUE & APPROVE) (TO PROCEED) BY	DATE		
RESIDENT ENGINEER SIGNATURE	DATE		

TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE
CALTRANS · BAY AREA TOLL AUTHORITY · CALIFORNIA TRANSPORTATION COMMISSION

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** May 30, 2012

FR: Dina Noel, Assistant Deputy Director Toll Bridge Program, CTC

RE: Agenda No. - 2b2

Item- Consent Calendar – Contract Change Orders (CCOs)
Yerba Buena Island Transition Structures (YBITS) No. 1 CCO 21-S2 – Additional Funds for Storm Water Pollution Prevention

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Recommendation:
APPROVAL

Cost:

CCO 21-S0:	$ 0.00	Issued August 22, 2010
CCO 21-S1:	$2,550,060.00	Approved October 7, 2010
CCO 21-S2:	$1,500,000.00	Pending Approval

Schedule Impacts:
N/A

Discussion:

CCO 21-S2 in the amount $1,500,000 will provide additional funds to compensate the contractor for implementing Storm Water Pollution Prevention (SWPP) measures within the YBITS1 project site. The original CCO 21-S0 incorporated the Department's new statewide general permit issued by the State Water Resource Board. Due to the change in character of the work created by the new permit, CCO 21-S1 eliminated all SWPP contract item work and provided for the work to be performed on a force account basis.

As the work has progressed over the last year and a half, it has become apparent that the cost will exceed the funding provided. Extensive unanticipated costs have been incurred in properly controlling the storm water flows from the projects hillside which flow to drainage inlets that drain directly to the San Francisco Bay. Based on revised cost estimates, this change order will provide the funding requirements through the anticipated end of the project in the summer of 2013.

Risk Management:

CCO Risk 1003 has been established to account for SWPPP costs expected to be incurred above and beyond CCO 21-S1. The amount of $1.5M to be expended in CCO 21-S2 is at the low end of the estimated range of $1.5M-$2.5M.

Attachment(s):

1. Draft CCO: 21-S2
2. Draft CCO Memo: 21-S2
3. Approved CCO & CCO Memo 21-S0 & 21-S1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO 21	Suppl. No. 2	Contract No. 04 - 0120S4	Road SF-80-12.7/13.2	FED. AID LOC.: NO FED AID

To: **M C M CONSTRUCTION INC**

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract. ***NOTE: This change order is not effective until approved by the Engineer.***

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

Extra Work at Force Account:

Provide additional funds for performing all work necessary in order to comply with the Department's current Statewide General Permit issued by the State Water Resources Control Board (SWRCB) titled "Order No. 2009-0009-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities", as specified under the Special Provision sections listed under Change Order No. 21, Supplement No. 1, including the revisions incorporated unde the original Change Order No. 21, Supplement No. 0, and as determined by the Engineer.

Estimated Cost of Extra Work at Force Account = $1,500,000.00

Consideration of a time adjustment will be deferred until completion of the work specified herein. Determination of a commensurate time extension will be made in accordance with Section 8-1.07, "Liquidated Damages", of the Standard Specifications.

Estimated Cost: Increase ☑ Decrease ☐ **$1,500,000.00**

By reason of this order the time of completion will be adjusted as follows: Deferred

Submitted by

Signature	Resident Engineer William Howe, Senior R.E.	Date

Approval Recommended by

Signature	Principal T.E. Mike Forner	Date

Engineer Approval by

Signature	Principal T.E. Mike Forner	Date

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as may otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

Contractor Acceptance by

Signature	(Print name and title)	Date

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CONTRACT CHANGE ORDER MEMORANDUM

TO: Deanna Vilcheck, ACM /	FILE: E.A. 04 - 0120S4
	CO-RTE-PM SF-80-12.7/13.2
FROM: William Howe, Senior R.E.	FED. NO. NO FED AID
CCO#: 21 SUPPLEMENT#: 2 Category Code: CXSA	CONTINGENCY BALANCE (incl. this change) $68,635,316.00
COST: $1,500,000.00 INCREASE ☑ DECREASE ☐	HEADQUARTERS APPROVAL REQUIRED? ☑ YES ☐ NO
SUPPLEMENTAL FUNDS PROVIDED: $0.00	IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS? ☑ YES ☐ NO
CCO DESCRIPTION: Additional SWPP Funding	**PROJECT DESCRIPTION:** YBITS-1 (Yerba Buena Island Transition Structures)

Original Contract Time:	Time Adj. This Change:	Previously Approved CCO Time Adjustments:	Percentage Time Adjusted: (including this change)	Total # of Unreconciled Deferred Time CCO(s): (including this change)
1390 Day(s)	DEF Day(s)	0 Day(s)	0 %	9

THIS CHANGE ORDER PROVIDES FOR:

Additional funding for implementing Storm Water Pollution Prevention (SWPP) measures as specified under Contract Change Order No. 21, Supplements No. 0 and No. 1.

This project, the Yerba Buena Island Transition Structure (YBITS), provides for the construction of two bridges which will connect eastbound and westbound traffic on the new east span of the San Francisco Oakland Bay Bridge (SFOBB) from the signature Self-Anchored Suspension Bridge to the existing Yerba Buena Island tunnel. The structures are comprised of concrete box girder bridges each approximately 40 meters high and 450 meters in length.

The original Contract Change Order No. 21, Supplement No. 0, incorporated the Department's new National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance (Order No. 2009-009-DWQ), Construction General Permit (CGP) effective July 1, 2010. The new permit implements year-round soil stabilization and sediment control best management practices in place of current rainy season requirements, increases the reporting and monitoring requirements for storm water discharges and provides changes for existing storm water pollution prevention plans to be in compliance with the new CGP. Several sections of the Contract Special Provisions were modified under the original change order to reflect these changes.

Change Order No. 21, Supplement No. 1, was subsequently issued to eliminate the contract item work associated with SWPP and provide for all SWPP work to be performed on a force account basis. As the work has progressed over the last year and a half, it has become apparent that the cost of the work will exceed the funding provided under Supplement No. 1. This change order will provide additional funding to cover the current estimated cost of the work through the anticipated end of the project in the Summer of 2013. Extensive costs have been incurred in properly controlling the storm water flows from the hills in the east and the west of the project limits. This storm water flows towards the center of the project and then drains to drainage inlets that drain directly to the San Francisco Bay.

The additional funding will be provided as extra work at force account at an estimated additional cost of $1,500,000.00, which shall be financed from the Contract's contingency balance. A cost analysis is on file.

Any adjustment of contract time is deferred as the additional requirements may affect the controlling operation.

Maintenance concurrence is not required as the change doesn't affect any permanent roadway features.

CONCURRED BY:		
Construction Engineer:	William Howe	Date
Bridge Engineer:	Mehran Ardakanian	Date
Project Engineer:	Bob Zandipour, Design	Date
Project Manager:	Ken Terpstra	Date
FHWA Rep.:		Date
Environmental:		Date
Other (specify):		Date
Other (specify):		Date
District Prior Approval By:		Date
HQ (Issue Approve) By:		Date
Resident Engineer's Signature:		Date

ESTIMATE OF COST

	THIS REQUEST	TOTAL TO DATE
ITEMS	$0.00	($149,940.00)
FORCE ACCOUNT	$1,500,000.00	$4,200,000.00
AGREED PRICE	$0.00	$0.00
ADJUSTMENT	$0.00	$0.00
TOTAL	$1,500,000.00	$4,050,060.00

FEDERAL PARTICIPATION

☐ PARTICIPATING ☐ PARTICIPATING IN PART ☑ NONE
☐ NON-PARTICIPATING (MAINTENANCE) ☐ NON-PARTICIPATING

FEDERAL SEGREGATION (if more than one Funding Source or P.I.P. type)
☐ CCO FUNDED PER CONTRACT ☐ CCO FUNDED AS FOLLOWS

FEDERAL FUNDING SOURCE	PERCENT

CONTRACT CHANGE ORDER Change Requested by: Engineer

CCO: 21	Suppl. No. 0	Contract No. 04 - 0120S4	Road SF-80-12.7/13.2	FED. AID LOC.: NO FED AID

To: **M C M CONSTRUCTION INC**

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract. ***NOTE: This change order is not effective until approved by the Engineer.***

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

The Contractor shall reference and incorporate into the Contract the Department's new National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance (Order No. 2009-009-DWQ), Construction General Permit effective July 1, 2010.

The Department's permit references and incorporates by reference the current statewide general permit issued by the State Water Resources Control Board (SWRCB) titled "Order No. 2009-0009-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities" that regulates discharges of storm water and non-storm water from construction activities disturbing one or more acres of soil in a common plan of development. Copies of the statewide permit and its modifications are available for review from the SWRCB, Division of Water Quality, 1001 "I" Street, P.O. Box 100, Sacramento, California 95812-0100, Telephone fax: (916) 341-5463 and may also be obtained at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/

Said document shall be considered a part of, and shall become, an integral part of the Special Provisions and Contract for this project.

The requirements of this permit shall supersede the Department's permit referenced under Section 10-1.02 "WATER POLLUTION CONTROL" of the Contract Special Provisions entitled: "Order No. 99-06-DWQ, NPDES No. CAS000003, National Pollutant Discharge Elimination System Permit, Storm Water Permit and Waste Discharge Requirements for the State of California, Department of Transportation Properties. Facilities, and Activities". The requirements of this new permit shall govern over all relevant aspects of the Contract.

This Contract shall comply to the requirements pertaining to Risk Level 2 as defined under the permit.

The Contract Special Provisions shall be revised as follows:

1)Replace Section 5-1.26 RELATIONS WITH CALFIORNIA REGIONAL WATER QUALITY CONTROL BOARD of the special provisions with Section 5-1.26 RELATIONS WITH CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD as shown on Pages No. 63 of this change order (Attachment 5).

2)Replace Section 10-1.04 WATER POLLUTION CONTROL of the special provisions with Section 10-1.04 WATER POLLUTION CONTROL as shown on Pages No. 3 through 20 of this change order (Attachment 1).

3)Replace Section 10-1.05 CONSTRUCTION SITE MANAGEMENT of the special provisions with Section 10-1.05 CONSTRUCTION SITE MANAGEMENT as shown on Pages No. 21 through 34 of this change order (Attachment 2).

The Storm Water Pollution Prevention Plan (SWPPP) and Construction Site Monitoring Program for this project will be revised based on a project risk level of 2. A qualified SWPPP developer who meets the qualification and certification requirements of Section VII of the new CGP will develop the SWPPP. The project water pollution control manager must meet the requirements for a qualified SWPPP developer. These requirements are summarized on Page No. 35 of this change order (Attachment 3).

Storm water site inspections shall be conducted on a weekly basis year-round. The water pollution control manager must complete rain event action plans before any likely precipitation event. Sampling and analyses of storm water discharge locations, run-on locations and receiving water locations must be collected and analyzed daily for turbidity and pH during qualifying rain events. A qualifying rain event is defined as any storm event that produces precipitation of 1/2 inch or more of rain.

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 21	Suppl. No. 0	Contract No. 04 - 0120S4	Road SF-80-12.7/13.2	FED. AID LOC.: NO FED AID

The water pollution control manager must prepare rain event action plans, notice of discharge reports, numeric action level exceedance reports, numeric effluent limitation violation reports and storm water annual reports. Use forms included on Pages No. 36 through 62 of this change order (Attachment 4) for preparing Rain Event Action Plan, and Sampling Field Log Sheets, Storm Water Site Inspection Report, Quarterly Non-Storm Water Site Inspection Report.

Any additional costs resulting from this change order are deferred and shall be compensated under a supplement to this change order.

Consideration of a time adjustment will be deferred until completion of the work specified herein. Determination of a commensurate time extension will be made in accordance with Section 8-1.07, "Liquidated Damages", of the Standard Specifications and Section 10-1.22 " Progress Schedule (Critical Path Method)" of the Special Provisions.

Estimated Cost: Increase ☐ Decrease ☐ $0.00

By reason of this order the time of completion will be adjusted as follows: Deferred

Submitted by

Signature	Resident Engineer	Date
Rajesh Oberoi	Rajesh Oberoi, Senior R.E.	9/23/10

Approval Recommended by

Signature	Area Construction Manager	Date
Deanna Vilcheck	Deanna Vilcheck	9/28/10

Engineer Approval by

Signature	Area Construction Manager	Date
Deanna Vilcheck	Deanna Vilcheck	9/28/10

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as may otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

Contractor Acceptance by

Signature	(Print name and title)	Date
[signature]	Edmundo A. Ruchi Treasurer	9-28-10

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CONTRACT CHANGE ORDER MEMORANDUM

DATE: 8/12/2010 Page 1 of 2

TO: Deanna Vilcheck, ACM /	FILE: E.A. 04 - 0120S4
FROM: Rajesh Oberoi, Senior R.E.	CO-RTE-PM SF-80-12.7/13.2
	FED. NO. NO FED AID
CCO#: 21 SUPPLEMENT#: 0 Category Code: CXSA	CONTINGENCY BALANCE (Incl. this change) $29,054,212.00
COST: $0.00 INCREASE ☐ DECREASE ☐	HEADQUARTERS APPROVAL REQUIRED? ☑ YES ☐ NO
SUPPLEMENTAL FUNDS PROVIDED: $0.00	IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS? ☑ YES ☐ NO
CCO DESCRIPTION: New Construction General permit	**PROJECT DESCRIPTION:** YBITS-1 (Yerba Buena Island Transition Structures)

Original Contract Time:	Time Adj. This Change:	Previously Approved CCO Time Adjustments:	Percentage Time Adjusted: (including this change)	Total # of Unreconciled Deferred Time CCO(s): (including this change)
1390 Day(s)	DEF Day(s)	0 Day(s)	0 %	0

THIS CHANGE ORDER PROVIDES FOR:

Incorporating the Department's new National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance (Order No. 2009-009-DWQ), Construction General Permit into the contract.

The new National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance (Order No. 2009-009-DWQ), Construction General Permit (CGP) was adopted by the State Water Resources Control Board on September 9, 2009, and is effective July 1, 2010. Existing projects that have a Storm Water Pollution Prevention Plan (SWPPP) and have filed a Notice of Construction (NOC) under the existing CGP (Order No. 99-08-DWQ) will be grand-fathered under the new CGP as Risk Level 1. However this project has been specifically designated as Risk Level 2 as agreed between the Department and the San Francisco Regional Water Quality Control Board.

This change order revises the CGP order number, implements year-round soil stabilization and sediment control best management practices in place of current rainy season requirements, increases the reporting and monitoring requirements for storm water discharges and provides changes for existing storm water pollution prevention plans to be in compliance with the new CGP. Several sections of the contract special provisions are modified to reflect these changes.

The new CGP does not contain a defined rainy season and therefore requires installation of soil stabilization and sediment control best management practices year-round. Soil stabilization and sediment controls must be installed on inactive areas of construction if the area is not scheduled to be re-disturbed for more than 14 days. The contractor will be compensated for additional mobilizations of crews and equipment necessary to install soil stabilization and sediment controls during the contract-specified non-rainy season. The contractor will also be compensated for any adjustments because of the need to apply soil stabilization and sediment controls on small areas versus the larger areas allowed when there was a rainy season definition and for providing a dedicated water pollution control manager.

In order to enact the new permit via change order in a timely manner, compensation for these additional costs resulting from this change is deferred and shall be compensated under a forthcoming supplement to this change order.

Adjustment of contract time is deferred as the change may affect the controlling operation.

Maintenance concurrence is not required as this change doesn't affect any permanent roadway features.

This change order was concurred by Sarah Picker of HQ Construction on September 20,2010.

CONCURRED BY:		
Construction Engineer:	Rajesh Oberoi	Date 9/23/10
Bridge Engineer:	Mehran Ardakanian	Date
Project Engineer:		Date
Project Manager:		Date
FHWA Rep.:		Date
Environmental:		Date
Other (specify):	SARAH PICKER	Date 9-20-10
Other (specify):		Date
District Prior Approval By:		Date
HQ (Issue Approve) By:	LARRY SALHANEY	Date 9-23-10
Resident Engineer's Signature:	Rajesh Oberoi	Date 9/23/10

ESTIMATE OF COST	THIS REQUEST	TOTAL TO DATE
ITEMS	$0.00	$0.00
FORCE ACCOUNT	$0.00	$0.00
AGREED PRICE	$0.00	$0.00
ADJUSTMENT	$0.00	$0.00
TOTAL	$0.00	$0.00

FEDERAL PARTICIPATION

☐ PARTICIPATING ☐ PARTICIPATING IN PART ☑ NONE
☐ NON-PARTICIPATING (MAINTENANCE) ☐ NON-PARTICIPATING

FEDERAL SEGREGATION (if more than one Funding Source or P.I.P. type)
☐ CCO FUNDED PER CONTRACT ☐ CCO FUNDED AS FOLLOWS

FEDERAL FUNDING SOURCE PERCENT

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 21	Suppl. No. 1	Contract No. 04 - 0120S4	Road SF-80-12.7/13.2	FED. AID LOC.: NO FED AID

To: M C M CONSTRUCTION INC

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract. ***NOTE: This change order is not effective until approved by the Engineer.***

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

Cost incurred by the Contractor pertaining to compliance to the following sections of the Contract Special Provisions, including the revisions incorporated under the original Change Order No. 21, shall be compensated on a force account basis in lieu of the contract bid item prices associated with this work:

Section 5-1.26 Relations with California Regional Water Quality Control Board
Section 10-1.04 Water Pollution Control
Section 10-1.05 Construction Site management
Section 10-1.06 Temporary Active Treatment System
Section 10-1.07 Sweeping
Section 10-1.08 Turbidity Control
Section 10-1.09 Temporary Hydraulic Mulch (Bonded Fiber Matrix) Section 10-1.10 Temporary Cover
Section 10-1.11 Temporary Concrete Washout
Section 10-1.12 Temporary Check Dam
Section 10-1.13 Temporary Silt Fence
Section 10-1.15 Temporary Gravel Bag Berm
Section 10-1.16 Temporary Construction Entrance
Section 10-1.17 Move In/Move Out (Temporary Erosion Control)
Section 10-1.18 Temporary Drainage Inlet Protection

Estimate of Decrease in Contract Item at Contract Price:

Item No. 8: CONSTRUCTION SITE MANAGEMENT						
-1 LS	(-100.00%)	$15,000.00	/LS	=	-$15,000.00	(-100.00%)
Item No. 10: PREPARE STORM WATER POLLUTION						
-1 LS	(-100.00%)	$10,000.00	/LS	=	-$10,000.00	(-100.00%)
Item No. 11: TEMPORARY SILT FENCE						
-410 M	(-100.00%)	$11.00	/M	=	-$4,510.00	(-100.00%)
Item No. 12: TEMPORARY GRAVEL BAG BERM						
-200 M	(-100.00%)	$7.00	/M	=	-$1,400.00	(-100.00%)
Item No. 13: TEMPORARY CONSTRUCTION ENTRANCE						
-5 EA	(-100.00%)	$5,000.00	/EA	=	-$25,000.00	(-100.00%)
Item No. 14: TEMPORARY COVER						
-1130 M2	(-100.00%)	$6.00	/M2	=	-$6,780.00	(-100.00%)
Item No. 15: TEMPORARY CHECK DAM						
-39 M	(-100.00%)	$50.00	/M	=	-$1,950.00	(-100.00%)
Item No. 16: MOVE-IN/MOVE-OUT						
-4 EA	(-100.00%)	$750.00	/EA	=	-$3,000.00	(-100.00%)
Item No. 17: TEMPORARY DRAINAGE INLET PROTECTION						
-13 EA	(-100.00%)	$200.00	/EA	=	-$2,600.00	(-100.00%)
Item No. 18: TEMPORARY HYDRAULIC MULCH						
-4500 M2	(-100.00%)	$1.00	/M2	=	-$4,500.00	(-100.00%)
Item No. 19: STREET SWEEPING						
-1 LS	(-100.00%)	$25,000.00	/LS	=	-$25,000.00	(-100.00%)
Item No. 20: TEMPORARY CONCRETE WASHOUT BIN						
-200 EA	(-100.00%)	$1.00	/EA	=	-$200.00	(-100.00%)

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 21	Suppl. No. 1	Contract No. 04 - 0120S4	Road SF-80-12.7/13.2	FED. AID LOC.: NO FED AID

Item No. 21: TEMPORARY ACTIVE TREATMENT SYSTEM
-1 LS (-100.00%) $50,000.00 /LS = -$50,000.00 (-100.00%)

In accordance with Section 4-1.03B(3), "Eliminated Items," of the Standard Specifications, the adjustment due to the elimination of Contract Item No. 8 and Contract Item No. 10 through Contract Item No. 21 is Zero.

Estimated total cost for Decrease in Contract Item.....($149,940.00)

Extra Work at Force Account:

Perform all work necessary in order to comply with the Department's current statewide general permit issued by the State Water Resources Control Board (SWRCB) titled "Order No. 2009-0009-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities" as specified under the Special Provision sections listed under this change order, including the revisions incorporated under the original Change Order No. 21, and as determined by the Engineer.

Estimated cost of Extra Work at Force Account $2,700,000.00

Consideration of a time adjustment will be deferred until completion of the work specified herein. Determination of a commensurate time extension will be made in accordance with Section 8-1.07, "Liquidated Damages", of the Standard Specifications and Section 10-1.22 " Progress Schedule (Critical Path Method)" of the Special Provisions.

Estimated Cost: Increase ☑ Decrease ☐ $2,550,060.00

By reason of this order the time of completion will be adjusted as follows: Deferred

Submitted by		
Signature: Rajesh Oberoi	Resident Engineer: Rajesh Oberoi, Senior R.E.	Date: 10/6/10
Check Recommended by		
Signature: Mike Forner	Principal T.E.: Mike Forner	Date: 10/7/10
Engineer Approval by		
Signature: Mike Forner	Principal T.E.: Mike Forner	Date: 10/14/10

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as may otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

Contractor Acceptance by		
Signature: [signature]	(Print name and title) Edmundo Ruchi - Treasurer	Date: 10-13-2010

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CONTRACT CHANGE ORDER MEMORANDUM

DATE: 9/15/2010 Page 1 of 2

TO: Deanna Vilcheck, ACM (DV)	FILE: E.A. 04 - 0120S4
FROM: Rajesh Oberoi, Senior R.E.	CO-RTE-PM SF-80-12.7/13.2
	FED. NO. NO FED AID
CCO#: 21 SUPPLEMENT#: 1 Category Code: CXSA	CONTINGENCY BALANCE (incl. this change) $26,204,152.00
COST: $2,550,060.00 INCREASE ☑ DECREASE ☐	HEADQUARTERS APPROVAL REQUIRED? ☑ YES ☐ NO
SUPPLEMENTAL FUNDS PROVIDED: $66,000.00	IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS? ☑ YES ☐ NO
CCO DESCRIPTION: NEW CONSTRUCTION GENERAL PERMIT(CGP)	**PROJECT DESCRIPTION:** YBITS-1 (Yerba Buena Island Transition Structures)

Original Contract Time:	Time Adj. This Change:	Previously Approved CCO Time Adjustments:	Percentage Time Adjusted: (including this change)	Total # of Unreconciled Deferred Time CCO(s): (including this change)
1390 Day(s)	DEF Day(s)	0 Day(s)	0 %	0 2

THIS CHANGE ORDER PROVIDES FOR:

Water pollution control work to be performed in order to comply with the Department's new National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance.

This project, the Yerba Buena Island Transition Structure (YBITS), provides for the construction of two bridges which will connect eastbound and westbound traffic on the new east span of the San Francisco Oakland Bay Bridge (SFOBB) from the signature Self-Anchored Suspension Bridge to the existing Yerba Buena Island tunnel. The structures are comprised of concrete box girder bridges each approximately 40 meters high and 450 meters in length.

The original Change Order No. 21 incorporated the Department's new National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance (Order No. 2009-009-DWQ), Construction General Permit (CGP) effective July 1, 2010. The new permit implements year-round soil stabilization and sediment control best management practices in place of current rainy season requirements, increases the reporting and monitoring requirements for storm water discharges and provides changes for,existing storm water pollution prevention plans to be in compliance with the new CGP. Several sections of the contract special provisions were modified under the original change order to reflect these changes.

The new CGP does not contain a defined rainy season and therefore requires installation of soil stabilization and sediment control best management practices year-round. Soil stabilization and sediment controls must be installed on inactive areas of construction if the area is not scheduled to be re-disturbed for more than 14 days. The contractor will need to be compensated for additional mobilizations of crews and equipment necessary to install soil stabilization and sediment controls during the contract-specified non-rainy season. The contractor will also need to be compensated for any adjustments because of the need to apply soil stabilization and sediment controls on small areas versus the larger areas allowed when there was a rainy season definition and for providing a dedicated water pollution control manager.

Compensation for these additional costs were deferred under the original change order.

This change order provides for all work pertaining to compliance with the new NPDES permit to be compensated on a force account basis. The existing contract items for the contractor's as-bid work pertaining to compliance with the old NPDES permit will be deleted. This adjustment of compensation shall be enacted due to the following conditions existing on this project:

1). This contract has been designated as a Risk Level 2 project, as defined under the new permit, which will require extensive pre-storm, active storm and post-storm reporting and testing to be performed. In addition to the already increased requirements for year round soil stabilization and sediment controls, these added measures will be difficult to segregate from the contractor's as-planned contract item operations. Maintenance costs associated with installed storm water pollution prevention (SWPP) measures is paid at 50% of the costs incurred in accordance with the special provisions further complicating the cost segregation. Compensating the work solely on a force account basis will eliminate compensation disputes and prevent double payment on work performed.

2). It is anticipated that additional SWPP measures will be ordered under this contract due to the high profile of the SFOBB east span corridor projects. Being the only active land (island) based contract on the corridor, having the higher risk level

assignment and having a high risk slope directly adjacent to the San Francisco Bay, the engineer along with corridor SWPPP oversight staff have historically recommended an increased level of protection on Yerba Buena Island. These additional measures will need to be compensated separately from the as-bid work.

3). Field estimates based on the last 4 years on the Yerba Buena Island Detour Project, which occupied the same jobsite as this contract, indicate that the Engineer's estimate of contract item quantities for required SWPP measures is significantly underestimated. This will required an adjustment of these items, based on a force account basis, for the work in excess of 125% of the as-bid quantity of work resulting in the majority of the work being performed at the same force account basis being stipulated under this change order.

4). The Department will be mitigating risk to the opening of the new SFOBB east span by implementing additional SWPP measures and ensuring NPDES compliance. Were the contract found to be non-compliant to the Department's permit, the project could incur significant delay potentially affecting the planned opening of the new east span.

Due to the conditions outlined above, this change order will delete the contract bid item work and compensate all work on a force account basis. This will eliminate the need to adjust all 13 contract bid items and allow the Department to implement SWPP measures as determined necessary as the specific requirements of the new permit become clarified

The change order will eliminate 13 contract items at contract prices for a credit of $149,940.00. All costs associated with implementing the project wide SWPP measures will be paid as extra work at force account at an estimated cost of $2,700,000.00. The net change order cost of $2,550,060.00 shall be financed from the contract's supplemental funds and the contract's contingency balance. Supplemental funding in the amount of $66,000.00 were provided for additional water pollution and erosion control measures and for maintenance sharing costs. A cost analysis is on file.

This change has been approved by TBPOC on October 7th, 2010.

Any adjustment of contract time is deferred as the additional requirements may affect the controlling operation.

Maintenance concurrence is not required as the change doesn't affect any permanent roadway features.

CONCURRED BY:		
Construction Engineer: Rajesh Oberoi		Date 10/12/10
Bridge Engineer:		Date
Project Engineer:		Date
Project Manager:		Date
FHWA Rep.:		Date
Environmental:		Date
Other (specify):		Date
Other (specify): TBPOC		Date 10/7/10
District Prior Approval By:		Date
HQ (Issue Approve) By: LARRY SALHANEY		Date 10/11/10
Resident Engineer's Signature: Rajesh Oberoi		Date 10/12/10

ESTIMATE OF COST		
	THIS REQUEST	TOTAL TO DATE
ITEMS	($149,940.00)	($149,940.00)
FORCE ACCOUNT	$2,700,000.00	$2,700,000.00
AGREED PRICE	$0.00	$0.00
ADJUSTMENT	$0.00	$0.00
TOTAL	$2,550,060.00	$2,550,060.00

FEDERAL PARTICIPATION

☐ PARTICIPATING ☐ PARTICIPATING IN PART ☑ NONE
☐ NON-PARTICIPATING (MAINTENANCE) ☐ NON-PARTICIPATING

FEDERAL SEGREGATION (if more than one Funding Source or P.I.P. type)
☐ CCO FUNDED PER CONTRACT ☐ CCO FUNDED AS FOLLOWS

FEDERAL FUNDING SOURCE	PERCENT

TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE
CALTRANS · BAY AREA TOLL AUTHORITY · CALIFORNIA TRANSPORTATION COMMISSION

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** May 30, 2012

FR: Dina Noel, Assistant Deputy Director Toll Bridge Program, CTC

RE: Agenda No. - 2b3

Item- Consent Calendar – Contract Change Orders (CCOs)
Yerba Buena Island Transition Structures (YBITS) No. 1 CCO 68-S1 – Additional Funds for Frame 2 Elevator Operation

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Recommendation:
APPROVAL

Cost:

CCO 68-S0:	$	934,770.00	Issued May 23, 2011
CCO 68-S1:	$	550,000.00	Pending Approval

Schedule Impacts:
N/A

Discussion:

CCO 68-S1 in the amount of $550,000 will provide additional funds to compensate the contractor for the cost of operating the elevator at Frame 2 of the YBITS1 structure. The original CCO 68-S0 provided a temporary elevator to access the Frame 2 superstructure that could be used as emergency egress from the structure during any weather event and eliminate the Department's risk pertaining to weather delays affecting the Seismic Safety Opening date that has been established for the new SFOBB east span. The original Change Order No. 68 provided a lump sum payment to furnish and install the elevator with the operational costs paid as extra work at force account.

Subsequent to CCO 68-S0 being issued, CCO 72-S1 was approved to establish milestones to release areas of the project to the adjacent SAS project and to mitigate delays incurred to the YBITS contract. CCO 72-S1 required the contractor to work double shifts and additional weekends to meet the milestone dates. These additional work shifts will require increased operation of the elevator which is paid on a force account basis as defined under the original CCO 68-S0. This change order will provide additional funding for operating the elevator based on the revised estimate of the costs to be incurred.

Risk Management:

CCO 68 has been implemented as part of a comprehensive delay risk mitigation plan that has been devised for the project. Additional costs due to the accelerated milestones established in CCO 72-S1 are covered by risk #58 – Acceleration of additional work items. The proposed cost of $550,000 is well within the projected range of $1M-$5M.

Attachment(s):

1. Draft CCO: 68-S1
2. Draft CCO Memo: 68-S1
3. Approved CCO & CCO Memo 68-S0

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO 68	Suppl. No. 1	Contract No. 04 - 0120S4	Road SF-80-12.7/13.2	FED. AID LOC.: NO FED AID

To: **M C M CONSTRUCTION INC**

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract. ***NOTE: This change order is not effective until approved by the Engineer.***

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

Extra Work at Force Account:

Provide additional funding for the operation and maintenance costs associated with the temporary elevator that was furnished and installed under Change Order No. 68, Supplement No. 0, as determined by the Engineer. Compensation will include the labor cost associated with providing an elevator operator and the cost of maintaining the elevator during its time in use.

Estimated Cost of Extra Work at Force Account = $550,000.00

Estimated Cost: **Increase** ☑ **Decrease** ☐ **$550,000.00**

By reason of this order the time of completion will be adjusted as follows: 0 days

Submitted by

Signature	Resident Engineer William Howe, Senior R.E.	Date

Approval Recommended by

Signature	Principal T.E. Mike Forner	Date

Engineer Approval by

Signature	Principal T.E. Mike Forner	Date

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as may otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

Contractor Acceptance by

Signature	(Print name and title)	Date

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CONTRACT CHANGE ORDER MEMORANDUM

TO: Deanna Vilcheck, ACM /	FILE: E.A. 04 - 0120S4
	CO-RTE-PM SF-80-12.7/13.2
FROM: William Howe, Senior R.E.	FED. NO. NO FED AID
CCO#: 68 SUPPLEMENT#: 1 Category Code: BZZZ	CONTINGENCY BALANCE (incl. this change) $70,135,316.00
COST: $550,000.00 INCREASE ☑ DECREASE ☐	HEADQUARTERS APPROVAL REQUIRED? ☑ YES ☐ NO
SUPPLEMENTAL FUNDS PROVIDED: $0.00	IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS? ☑ YES ☐ NO
CCO DESCRIPTION: Additional Funds for Elevator Operation	**PROJECT DESCRIPTION:** YBITS-1 (Yerba Buena Island Transition Structures)

Original Contract Time:	Time Adj. This Change:	Previously Approved CCO Time Adjustments:	Percentage Time Adjusted: (including this change)	Total # of Unreconciled Deferred Time CCO(s): (including this change)
1390 Day(s)	0 Day(s)	0 Day(s)	0 %	9

THIS CHANGE ORDER PROVIDES FOR:

Additional funds to operate the temporary elevator that provides access to the Frame 2 superstructure.

This project, the Yerba Buena Island Transition Structure (YBITS), provides for the construction of two bridges which will connect eastbound and westbound traffic on the new east span of the San Francisco Oakland Bay Bridge (SFOBB) to the existing Yerba Buena Island (YBI) tunnel. The structures are comprised of concrete box girder bridges each approximately 50 meters high and 450 meters in length.

The original Change Order No. 68 S0 provided a temporary elevator to access the Frame 2 superstructure that could be used as emergency egress from the structure during any weather event and eliminate the Department's risk pertaining to weather delays affecting the Seismic Safety Opening date that has been established via the TBPOC for the new SFOBB east span. The original Change Order No. 68 S0 provided a lump sum payment to furnish and install the elevator with the operational costs paid as extra work at force account.

Subsequent to Change Order No. 68 S0 being issued, Change Order 72, Supplement No. 1, was approved to establish milestones to release areas of the project to the adjacent SAS project and to mitigate delays incurred to the YBITS contract. Supplement No. 1 required the Contractor to work double shifts and additional weekends to meet the milestone dates. These additional work shifts will require increased operation of the elevator, which is paid on a force account basis as defined under the original Change Order No. 68 S0. This change order will provide additional funding for operating the elevator based on the revised estimate of the costs to be incurred.

Compensation for these additional costs shall be paid as extra work at force account at an estimated cost of $550,000.00, which shall be funded from the Contract's contingency fund. A detailed cost estimate is on file.

No adjustment of contract time shall be granted as the change will not affect the controlling operation.

Maintenance concurrence is not required as this change affects a temporary structure and doesn't affect any permanent roadway features.

CONCURRED BY:		
Construction Engineer:	William Howe	Date
Bridge Engineer:	Mehran Ardakanian	Date
Project Engineer:	Bob Zandipour, Design	Date
Project Manager:	Ken Terpstra	Date
FHWA Rep.:		Date
Environmental:		Date
Other (specify):		Date
Other (specify):		Date
District Prior Approval By:		Date
HQ (Issue Approve) By:		Date
Resident Engineer's Signature:		Date

ESTIMATE OF COST

	THIS REQUEST	TOTAL TO DATE
ITEMS	$0.00	$0.00
FORCE ACCOUNT	$550,000.00	$920,000.00
AGREED PRICE	$0.00	$564,770.00
ADJUSTMENT	$0.00	$0.00
TOTAL	$550,000.00	$1,484,770.00

FEDERAL PARTICIPATION

☐ PARTICIPATING ☐ PARTICIPATING IN PART ☑ NONE
☐ NON-PARTICIPATING (MAINTENANCE) ☐ NON-PARTICIPATING

FEDERAL SEGREGATION (if more than one Funding Source or P.I.P. type)
☐ CCO FUNDED PER CONTRACT ☐ CCO FUNDED AS FOLLOWS

FEDERAL FUNDING SOURCE	PERCENT

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO 68	Suppl. No. 0	Contract No. 04 - 012084	Road SF-80-12.7/13.2	FED. AID LOC.: NO FED AID

To: **M C M CONSTRUCTION INC**

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract. ***NOTE: This change order is not effective until approved by the Engineer.***

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

Extra Work at Force Account:

Provide compensation to the Contractor for the operation and maintenance costs associated with the temporary elevator being furnished and installed under this change order as determined by the Engineer. Compensation will include the labor cost associated with providing an elevator operator and the maintaining the elevator during its time in operation and for providing electrical power service as required for the elevators operation.

Estimated cost of Extra Work at Force Account $370,000.00

Extra Work at Lump Sum:

Compensate the Contractor for providing temporary elevator access to the Frame 2 superstructure for both the Westbound and Eastbound Structures (Br. No. 34-0006 L/R). Compensation includes but is not limited to all costs associated with furnishing, installing and removing a 6,000 pound capacity single cage man and material hoist that will provide access fror the ground level to the superstructures.

For these costs, the Contractor shall be compensation an agreed lump sum $564,770.00. This lump sum constitutes full and final compensation for all costs, including all markups, for furnishing, installing and removing a temporary elevator as defined under this change order. Operation and maintenance cost associated with the elevator are excluded from this lum sum and shall be paid as extra work at force account as defined elsewhere under this change order.

Estimated cost of Extra Work at Lump Sum $564,770.00

Any salvage or resale value associated with the elevator being furnished under this change order, including the cage, tower crane mast, base frame, power cables, motors and all appurtenances, shall be credited to the Department after the removal of the elevator is completed. This salvage or resale value is deferred and shall be provided under a supplemental change order.

Estimated Cost: Increase ☑ Decrease ☐ **$934,770.00**

By reason of this order the time of completion will be adjusted as follows: 0 days

Submitted by

Signature	Resident Engineer	Date
Rajesh Oberoi	Rajesh Oberoi, Senior R.E.	04/05/11

Approval Recommended by

Signature	Principal T.E.	Date
Deanna Vilchen	~~Principal T.E.~~ Mike Fortner	4/29/11

Engineer Approval by

Signature	Principal T.E.	Date
Deanna Vilchen	~~Principal T.E.~~ Mike Fortner	4/29/11

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as may otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

Contractor Acceptance by

Signature	(Print name and title)	Date
	Edmundo A. Ruchi - Treasurer	4-29-2011

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CONTRACT CHANGE ORDER MEMORANDUM

DATE: 4/26/2011 Page 1 of 2

TO: Deanna Vilcheck, ACM / DV	FILE: E.A. 04 - 0120S4
FROM: Rajesh Oberoi, Senior R.E.	CO-RTE-PM SF-80-12.7/13.2
	FED. NO. NO FED AID

CCO#: 68	SUPPLEMENT#: 0	Category Code: BZZZ	CONTINGENCY BALANCE (incl. this change) $84,344,008.50
COST: $934,770.00	INCREASE ☑ DECREASE ☐		HEADQUARTERS APPROVAL REQUIRED? ☑ YES ☐ NO
SUPPLEMENTAL FUNDS PROVIDED: $0.00			IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS? ☑ YES ☐ NO

CCO DESCRIPTION:
Provide Elevator Access

PROJECT DESCRIPTION:
YBITS-1 (Yerba Buena Island Transition Structures)

Original Contract Time:	Time Adj. This Change:	Previously Approved CCO Time Adjustments:	Percentage Time Adjusted: (including this change)	Total # of Unreconciled Deferred Time CCO(s): (including this change)
1390 Day(s)	0 Day(s)	0 Day(s)	0 %	0

THIS CHANGE ORDER PROVIDES FOR:

Providing a temporary elevator to access the Frame 2 superstructure.

This project, the Yerba Buena Island Transition Structure (YBITS), provides for the construction of two bridges which will connect eastbound and westbound traffic on the new east span of the San Francisco Oakland Bay Bridge (SFOBB) to the existing Yerba Buena Island (YBI) tunnel. The structures are comprised of concrete box girder bridges each approximately 50 meters high and 450 meters in length.

Frame 2 of both the westbound and eastbound structures provide for the construction of 2 concrete box girders, each approximately 320 meters long and 26 meters wide. The structures will be constructed approximately 50 meters above ground. The contractor intends to provide access to the structures by constructing several temporary scaffold stairways with emergency egress to be provided by a man basket that would be lifted to the ground by a crane sitting adjacent to the structure.

Separately, Change Order No. 72 has been approved at a cost of $12,181,065 to establish a "ready for traffic" date for the YBITS contract that is consistent with the SFOBB east span Seismic Safety Opening date that has been established via the TBPOC. Change Order No. 72 established a December 31, 2012 prestressing completion date for all 4 frames on the structure. In addition to the lump sum payment provided under the change order, for each calendar day this work is completed prior to December 31, 2012 the contractor will be compensated $50,000 per day up to a maximum of 150 days or $7,500,000.

Change Order No. 72 specifies that weather days shall be granted to the contractor pertaining to the prestressing milestone established under the change. Any granted weather days above the 20 days specified under the change order will act to extend the December 31, 2012 prestressing completion incentive date. Change Order No. 68 shall act to mitigate the Department's risk to extending this incentive date due to excessive wind. Under the contractor's emergency egress plan, the contract would need to be suspended for any day in which the wind speed exceeds what would be considered safe for the contractor to lower a person to the ground via a man basket and crane. This weather suspension would then act to extend the milestone date established under Change Order No. 72 and concurrently extend the ready for traffic date of the structure.

Due to the high wind conditions that exist during both the summer and winter seasons in the San Francisco Bay, the potential weather days caused by excessive winds could jeopardize the Seismic Safety Opening date established by the TBPOC. This change order will provide a temporary elevator to access the Frame 2 superstructure that can be used as emergency egress from the structure during any weather event and eliminate the Department's risk.

The cost of the change order includes furnishing, installing and removing the elevator along with its operation and maintenance. Additional foundation work and lateral supports shall be required due to the planned elevator's proximity above a utility duct bank running between the eastbound and westbound structures. The elevator shall be furnished by purchasing a used device as the tower mast frame requires welded supports which won't easily lend itself to a rental agreement. Any salvage value associated with the purchased items will be credited under a supplemental change order.

Compensation for furnishing, installing and removing the elevator shall be paid as extra work at an agreed lump sum of $564,770.00. The operation and maintenance of the elevator shall be paid as extra work at force account at an estimated cost of $370,000.00. The total estimated change order cost of $934,770.00 shall be funded from the contract's contingency fund.

Tony Anziano the Toll Bridge Program Manager concurs with this change order.

No adjustment of contract time shall be granted as the change will not affect the controlling operation.

Maintenance concurrence is not required as this change affects a temporary structure and doesn't affect any permanent roadway features.

CONCURRED BY:	
Construction Engineer: Rajesh Oberoi	Date 04/29/11
Bridge Engineer: Mehran Ardalanian	Date 05/04/11
Project Engineer: BOB ZANIPOUR	Date 05/04/11
Project Manager: KEN TERPSTRA	Date 05/04/11
FHWA Rep.:	Date
Environmental:	Date
Other (specify):	Date
Other (specify):	Date
District Prior Approval By:	Date
HQ (Issue Approve) By: LARRY SALHANET	Date 04/27/11
Resident Engineer's Signature: Rajesh Oberoi 04/29/11	Date

ESTIMATE OF COST		
	THIS REQUEST	TOTAL TO DATE
ITEMS	$0.00	$0.00
FORCE ACCOUNT	$370,000.00	$370,000.00
AGREED PRICE	$564,770.00	$564,770.00
ADJUSTMENT	$0.00	$0.00
TOTAL	$934,770.00	$934,770.00

FEDERAL PARTICIPATION

☐ PARTICIPATING ☐ PARTICIPATING IN PART ☑ NONE
☐ NON-PARTICIPATING (MAINTENANCE) ☐ NON-PARTICIPATING

FEDERAL SEGREGATION (if more than one Funding Source or P.I.P. type)
☑ CCO FUNDED PER CONTRACT ☐ CCO FUNDED AS FOLLOWS

FEDERAL FUNDING SOURCE	PERCENT

TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE
CALTRANS · BAY AREA TOLL AUTHORITY · CALIFORNIA TRANSPORTATION COMMISSION

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** May 30, 2012

FR: Andrew Fremier, Deputy Director, BATA

RE: Agenda No. - 3a

Item- Progress Reports
TBSRP Project Progress and Financial Update May 2012

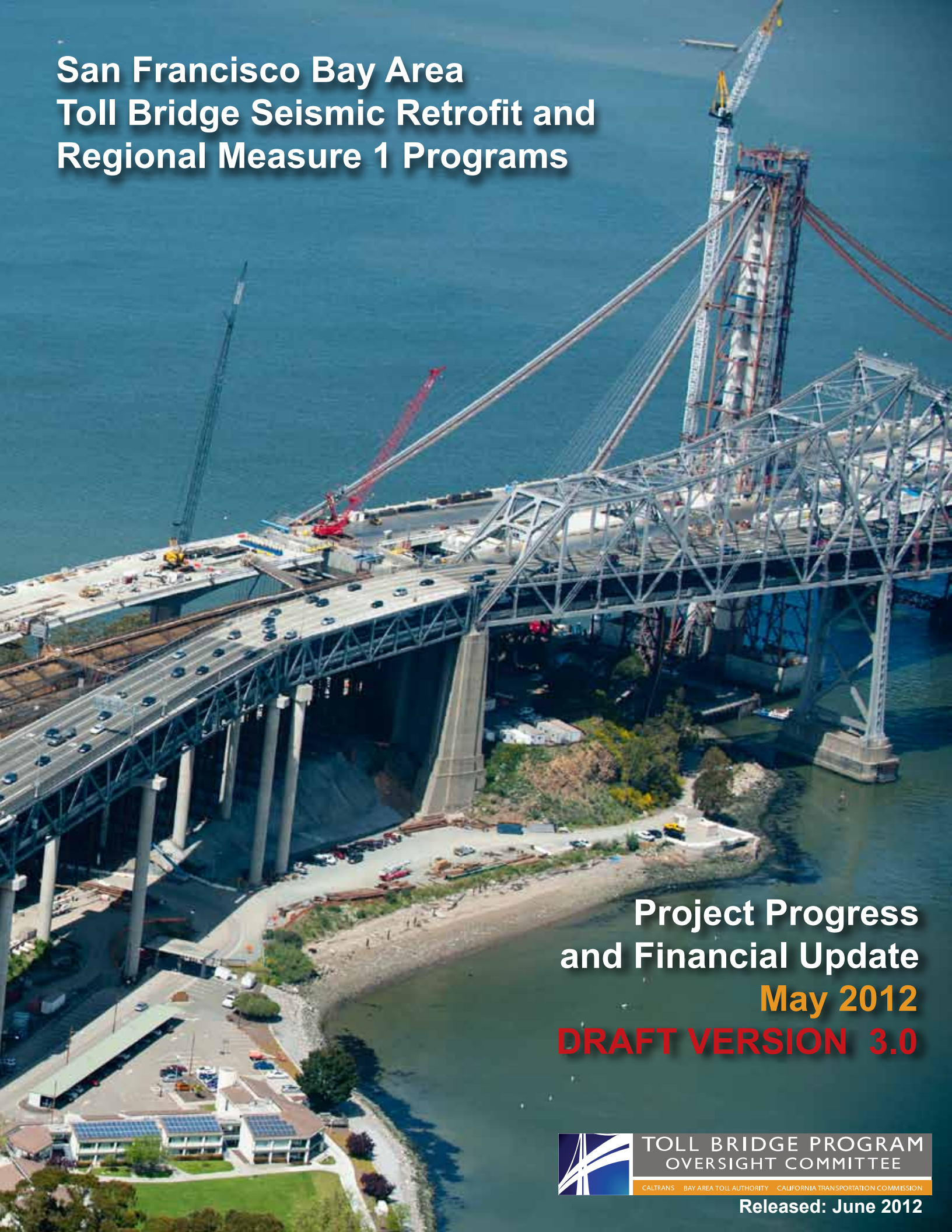
Recommendation:
APPROVAL

Cost:
N/A

Schedule Impacts:
N/A

Discussion:
Included in this package is a draft Project Progress and Financial Update May 2012. By meeting time, the PMT would have approved the report under a delegated TBPOC authority. TBPOC confirmation of this approval is requested.

Attachment(s):
TBSRP Project Progress and Financial Update May 2012 (see end of binder)



San Francisco Bay Area Toll Bridge Seismic Retrofit and Regional Measure 1 Programs

Project Progress and Financial Update

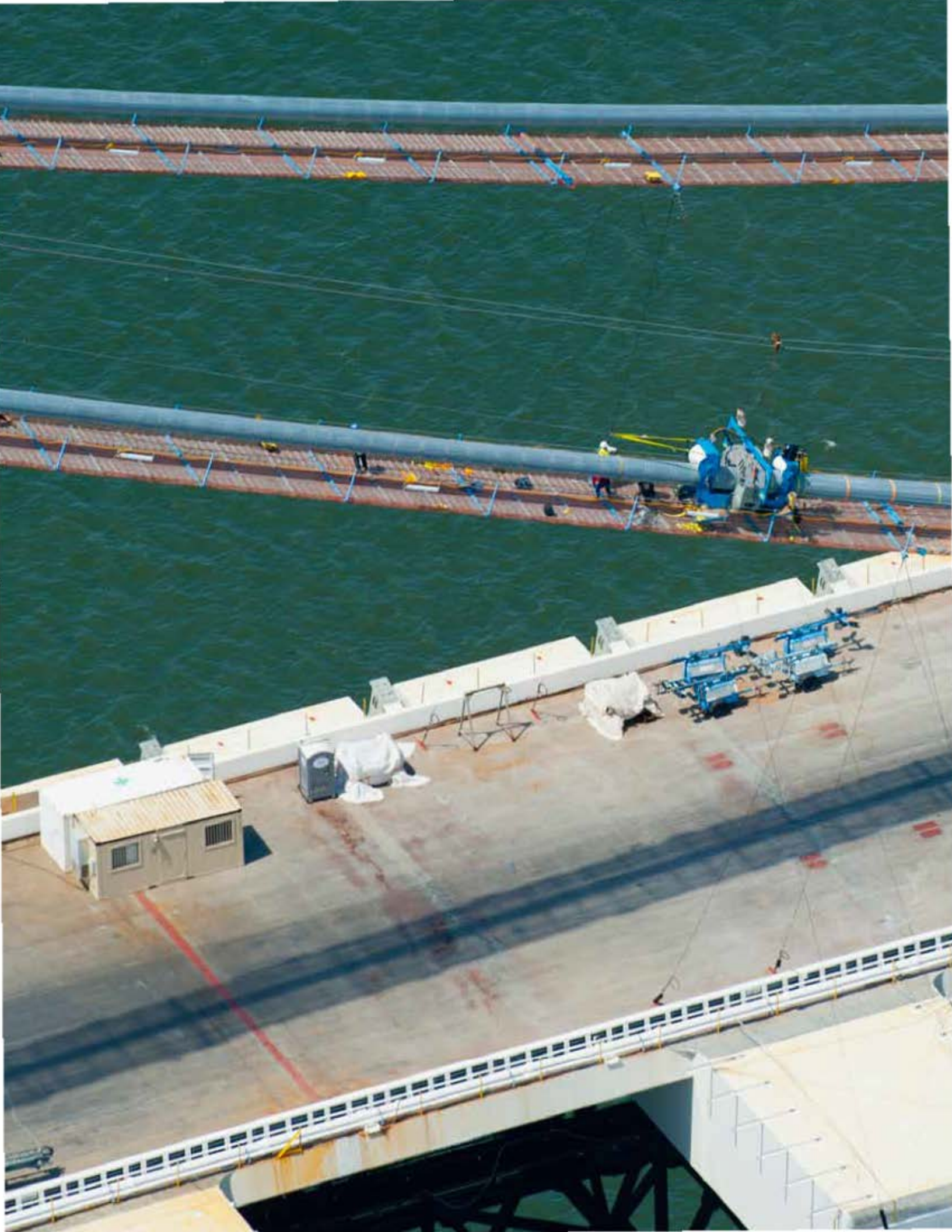
May 2012

DRAFT VERSION 3.0

TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

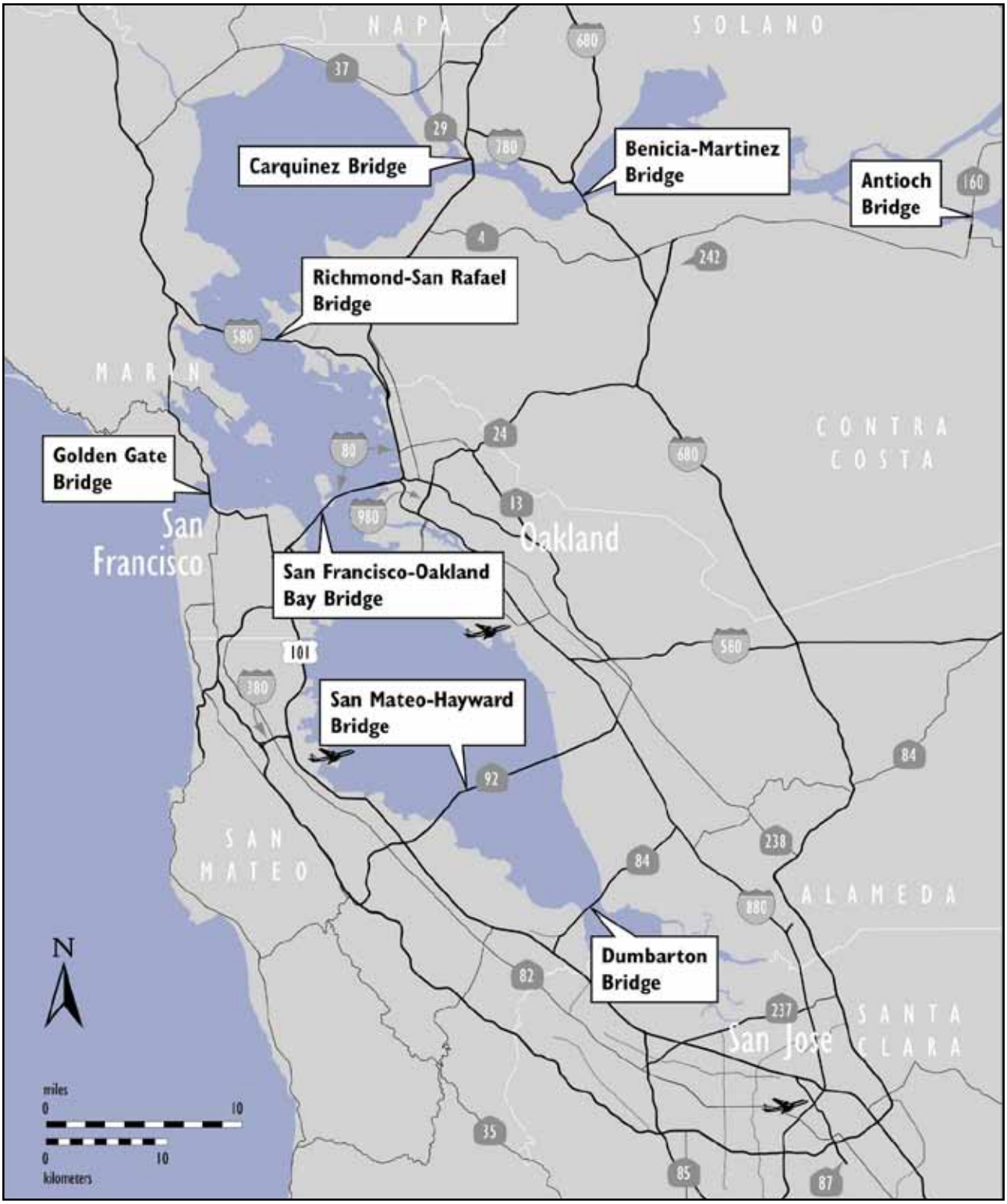
Released: June 2012



Cable Compaction Activities on the Self-Anchored Suspension Bridge

Table of Contents

Map of Bay Area Toll Bridges



*** The Golden Gate Bridge is owned and operated by the Golden Gate Bridge, Highway and Transportation District.**

Introduction

In July 2005, Assembly Bill (AB) 144 (Hancock) created the Toll Bridge Program Oversight Committee (TBPOC) to implement a project oversight and project control process for the new Benicia-Martinez Bridge and State Toll Bridge Seismic Retrofit Program projects. The TBPOC consists of the Director of the California Department of Transportation (Caltrans), the Executive Director of the Bay Area Toll Authority (BATA) and the Executive Director of the California Transportation Commission (CTC). The TBPOC's project oversight and control processes include, but are not limited to, reviewing bid specifications and documents, reviewing and approving significant change orders and claims in excess of $1 million (as defined by the Committee), and keeping the Legislature and others apprised of current project progress and status. In January 2010, Assembly Bill (AB) 1175 (Torlakson) amended the TBSRP to include the Antioch and Dumbarton Bridges seismic retrofit projects. The current Toll Bridge Seismic Retrofit Program is as follows:

Toll Bridge Seismic Retrofit Projects	Seismic Safety Status
Dumbarton Bridge Seismic Retrofit	Construction
Antioch Bridge Seismic Retrofit	Complete
San Francisco-Oakland Bay Bridge East Span Replacement	Construction
San Francisco-Oakland Bay Bridge West Approach Replacement	Complete
San Francisco-Oakland Bay Bridge West Span Seismic Retrofit	Complete
San Mateo-Hayward Bridge Seismic Retrofit	Complete
Richmond-San Rafael Bridge Seismic Retrofit	Complete
1958 Carquinez Bridge Seismic Retrofit	Complete
1962 Benicia-Martinez Bridge Seismic Retrofit	Complete
San Diego-Coronado Bridge Seismic Retrofit	Complete
Vincent Thomas Bridge Seismic Retrofit	Complete

The New Benicia-Martinez Bridge is part of a larger program of toll-funded projects called the Regional Measure 1 (RM1) Toll Bridge Program under the responsibility of BATA and Caltrans. While the rest of the projects in the RM1 program are not directly under the responsibility of the TBPOC, BATA and Caltrans will continue to report on their progress as an informational item. The RM1 program includes:

Regional Measure 1 Projects	Open to Traffic Status
Interstate 880/State Route 92 Interchange Reconstruction	Open
1962 Benicia-Martinez Bridge Reconstruction	Open
New Benicia-Martinez Bridge	Open
Richmond-San Rafael Bridge Deck Overlay Rehabilitation	Open
Richmond-San Rafael Bridge Trestle, Fender & Deck Joint Rehabilitation	Open
Westbound Carquinez Bridge Replacement	Open
San Mateo-Hayward Bridge Widening	Open
State Route 84 Bayfront Expressway Widening	Open
Richmond Parkway	Open

SUMMARY OF MAJOR PROJECT HIGHLIGHTS, ISSUES, AND ACTIONS

Verifying the initial Length of the Cable Band Bolts on the West Loop of the Self-Anchored Suspension Bridge

Parallel Wire Strands after Compaction

Measuring Initial Length of Cable Band Bolts

Toll Bridge Seismic Retrofit Program Risk Management

A major element of the 2005 AB 144, the law creating the TBPOC, was legislative direction to implement a more aggressive risk management program. Such a program has been implemented in stages over time to ensure development of a robust and comprehensive approach to risk management.

A comprehensive risk assessment is performed for each project in the program on a quarterly basis. Based upon those assessments, a forecast is developed using the average cost of risk. These forecasts can both increase and decrease as risks are identified, resolved or retired. Nonetheless, assurances have been made that the public is informed of the risks that have been identified and the possible expense they could necessitate.

The program contingency is currently $284 million in accordance with the TBPOC Approved Budget. As of the end of the first quarter of 2012, the 50 percent probable draw on program contingency is $154 million. The potential draw ranges from about $75 million to $225 million.

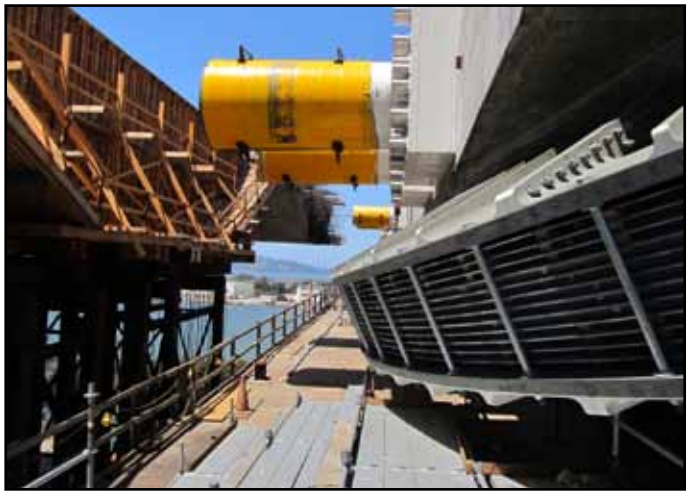
The $154 million program contingency balance can be used to cover the costs of identified risks. In accordance with the approved TBSRP Risk Management Plan, risk mitigation actions are continuously developed and implemented to reduce the potential draw on the program contingency.

San Francisco-Oakland Bay Bridge (SFOBB) East Span Seismic Replacement Project
SAS Super Structures Contract

The prime contractor constructing the Self-Anchored Suspension (SAS) bridge from the completed Skyway to Yerba Buena Island is a joint venture of American Bridge/Fluor (ABF). The structures that comprise the SAS were produced both in the Bay Area and around the world.

With installation of all structural elements of the tower and roadway nearing completion, focus is now turning to the placement of the bridge's more than 2.5 - foot in diameter and nearly mile-long main cable. The single cable is made up of 137 separate bundled strands containing 127 individual pencil thin wires (see diagram on page 24). Each of the 137 bundled

strands are individually pulled by a tramway system similar to a ski lift, to haul the strands up and around the bridge. Cable strand installation started in December 2011 and will be complete in April 2012. After the cable hauling is complete, the cable will be compacted to minimize voids between the individual wires and strands. Following compaction will be installation of suspender brackets and suspenders. The TBPOC's goal is to open the bridge to traffic in both directions by September 2013.



Hinge K Pipe Beams on right and YBITS#1 Structure on left

Yerba Buena Island Transition Structure #1 Contract

The YBITS #1 contract was awarded to MCM Construction, Inc., the same contractor that completed the Oakland Touchdown (OTD) #1 contract. The MCM contract includes completing the remaining foundations and the bridge deck structure from the Yerba Buena Island Tunnel to the Self-Anchored Suspension (SAS) bridge's Hinge "K" closure gap (Hinge "K" closure is now part of the SAS contract).

Work on the westbound structure was substantially completed in February 2012. Work is now focusing on the eastbound structure from the lower tunnel deck to the SAS bridge. Progress is shown in this photo on the left.

YBITS #1 Eastbound in Progress

Yerba Buena Island Transition Structure #1 Westbound Deck Complete and Eastbound in Progress with Existing Bridge on Left

YBITS #1 Eastbound in Progress

SUMMARY OF MAJOR PROJECT HIGHLIGHTS, ISSUES, AND ACTIONS

Oakland Detour - Westbound Opened to Traffic

Existing San Francisco-Oakland Bay Bridge Cantilever Section to be Dismantled

Antioch Bridge Seismic Retrofit

Oakland Detour

The detour realigns the existing bridge approach to the south to allow for construction of the remaining portion of OTD #2 that was in conflict with the existing bridge. The eastbound detour was completed and opened to traffic on May 30, 2011. The westbound detour lanes were constructed and opened to traffic on February 19, 2012.

Oakland Touchdown #2 Contract

The OTD #2 contract for construction was advertised in November 2011. The bid was protested by several bidders and was not awarded by Caltrans. In early March, the contract was rebid on an expedited procurement schedule. Bid opening was held on March 21, 2012, and the contract was awarded on March 29, 2012. The first working day will be on June 25, 2012.

Existing SFOBB Dismantling

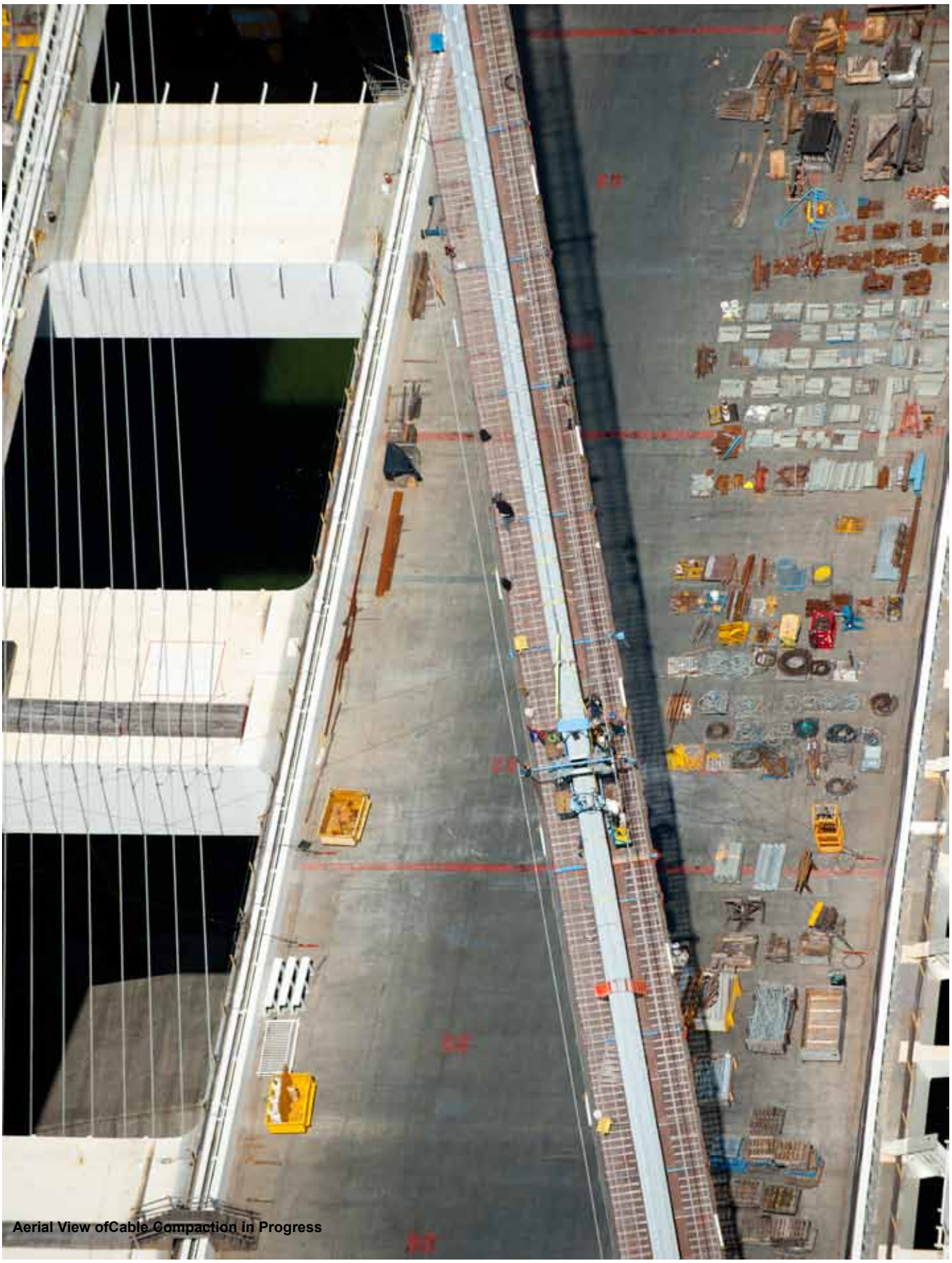
To expedite the opening of a new eastbound on-ramp and the pedestrian/bicycle pathway from Yerba Buena Island, the TBPOC has decided to split the bridge dismantling project into at least two contracts. The dismantling of the superstructure of the main cantilever section of the existing bridge will be incorporated into the YBITS #2 contract, while the remaining portions of the existing bridge will be removed by separate contract(s) still in design. The YBITS #2 contract was advertised on April 9, 2012 and bid opening is forecast for September 25, 2012.

Antioch Bridge Seismic Retrofit

The major retrofit strategy for the bridge includes installing seismic isolation bearings at each of the 41 piers, strengthening piers 12 through 31 with steel cross-bracing between column bents, and installing steel casings at all columns located at the Sherman Island approach slab bridge. Project progress is reported on page 32.

Dumbarton Bridge Seismic Retrofit

The Dumbarton bridge Bridge is a combination of three bridge types; reinforced concrete slab approaches supported on multiple pile extension columns, precast - prestressed concrete girders and steel box girders supported on reinforced concrete piers. The retrofit strategy for the bridge includes superstructure and deck modifications and installation of isolation bearings. The Dumbarton Bridge is scheduled to be closed for construction over the 2012 Memorial Day weekend to install a seismic joint in the westbound direction. Project progress is reported on page 34.



Aerial View ofCable Compaction in Progress

Toll Bridge Seismic Retrofit Program Cost Summary (Millions)

	Contract Status	AB 144/SB 66 Budget (August 2005)	TBPOC Approved Changes	Current TBPOC Approved Budget (April 2012)	Cost to Date (March 2012)	Current Cost Forecast (April 2012)	Cost Variance	Cost Status
		a	b	c = a + b	d	e	f = e - c	
SFOBB East Span Seismic Replacement								
Capital Outlay Construction								
Skyway	Completed	1,293.0	(47.8)	1,245.2	1,237.1	1,245.2	-	●
SAS Marine Foundations	Completed	313.5	(34.9)	278.6	274.8	278.6	-	●
SAS Superstructure	Construction	1,753.7	293.1	2,046.8	1,657.9	2,058.0	11.2	●
YBI Detour	Completed	131.9	360.9	492.8	466.1	482.8	(10.0)	●
YBI Transition Structures (YBITS)		299.3	(37.3)	262.0	113.4	326.7	64.7	●
YBITS 1	Construction			199.7	113.4	243.6	43.9	●
YBITS 2	Advertised			59.0	-	79.8	20.8	●
YBITS Landscaping	Design			3.3	-	3.3	-	●
Oakland Touchdown (OTD)		283.8	50.8	334.6	208.7	327.3	(7.3)	●
OTD 1	Completed			212.0	203.0	203.3	(8.7)	●
OTD 2	Awarded			62.0	-	56.3	(5.7)	●
Detour	Construction			51.0	-	53.7	2.7	●
OTD Electrical Systems	Design			-	-	4.4	4.4	●
Submerged Electric Cable	Completed			9.6	5.7	9.6	-	●
Existing Bridge Demolition	Design	239.2	(0.1)	239.1	-	237.3	(1.8)	●
*Cantilever Section	Design			-	-	60.4		
*504/288 Sections	Design			-	-	176.9		
Stormwater Treatment Measures	Completed	15.0	3.3	18.3	16.8	18.3	-	●
Other Completed Contracts	Completed	90.4	-	90.4	89.9	90.4	-	●
Capital Outlay Support		959.3	261.5	1,220.8	1,045.3	1,264.1	43.3	●
Right-of-Way and Environmental Mitigation		72.4	-	72.4	51.7	80.4	8.0	●
Other Budgeted Capital		35.1	(3.3)	31.8	0.7	7.7	(24.1)	●
Total SFOBB East Span Replacement		5,486.6	846.2	6,332.8	5,162.4	6,416.8	84.0	
Antioch Bridge Seismic Retrofit								
Capital Outlay Construction and Mitigation	Construction		51.0	51.0	42.9	50.8	(0.2)	●
Capital Outlay Support			31.0	31.0	22.1	31.0	-	●
Total Antioch Bridge Seismic Retrofit		-	82.0	82.0	65.0	81.8	(0.2)	
Dumbarton Bridge Seismic Retrofit								
Capital Outlay Construction and Mitigation	Construction		92.7	92.7	37.6	83.5	(9.2)	●
Capital Outlay Support			56.0	56.0	32.9	56.0	-	●
Total Dumbarton Bridge Seismic Retrofit		-	148.7	148.7	70.5	139.5	(9.2)	
Other Program Projects		2,268.4	(63.6)	2,204.8	2,162.7	2,192.2	(12.6)	●
Miscellaneous Program Costs		30.0	-	30.0	25.5	30.0	-	●
Net Programmatic Risks		-	-	-	-	**92.0**	**92.0**	●
Program Contingency		**900.0**	**(616.3)**	**283.7**	-	**129.7**	**(154.0)**	●
Total Toll Bridge Seismic Retrofit Program [2]		**8,685.0**	**397.0**	**9,082.0**	**7,486.1**	**9,082.0**	-	

Toll Bridge Seismic Retrofit Program Schedule Summary (Millions)

	AB 144/SB 66 Project Completion Schedule Baseline (July 2005)	TBPOC Approved Changes (Months)	Current TBPOC Approved Completion Schedule (April 2012)	Current Completion Forecast (April 2012)	Schedule Variance (Months)	Schedule Status	Remarks/Notes
	g	h	i=g+h	j	k=j-i	l	
SFOBB East Span Seismic Replacement							
Contract Completion							
Skyway	Apr 2007	8	Dec 2007	Dec 2007	-	●	See Page 28
SAS Marine Foundations	Jun 2008	(5)	Jan 2008	Jan 2008	-	●	See Page 18
SAS Superstructure	Mar 2012	29	Aug 2014	Aug 2014	-	●	See Page 19
YBI Detour	Jul 2007	39	Oct 2010	Oct 2010	-	●	See Page 15
YBI Transition Structures (YBITS)	Nov 2013	27	Feb 2016	Feb 2016	-		See Page 16
YBITS 1			Dec 2013	Dec 2013	-		
YBITS 2			Feb 2016	Feb 2016	-	●	
Oakland Touchdown	Nov 2013	10	Sep 2014	Sep 2014	-	●	See Page 29
OTD 1			Jun 2010	Jun 2010	-	●	
OTD 2			Sep 2014	Sep 2014	-	●	
Submerged Electric Cable			Jan 2008	Jan 2008	-	●	
Existing Bridge Demolition	Sep 2014	18	Dec 2015	June 2017	18	●	
Stormwater Treatment Measures	Mar 2008		Mar 2008	Mar 2008	-	●	
SFOBB East Span Bridge Opening and Other Milestones							
Westbound Seismic Safety Open	Sep 2011	27	Dec 2013	Sep 2013	(3)	●	
Eastbound Seismic Safety Open	Sep 2012	15	Dec 2013	Sep 2013	(3)	●	
Bike/Ped Pathway Open to YBI			Sep 2015	Sep 2015	-	●	
Permanent Eastbound On Ramp Open			Sep 2015	Sep 2015	-	●	
Oakland Detour Eastbound Open			May 2011	May 2011	-	●	
Oakland Detour Westbound Open			Feb 2012	Feb 2012	-	●	
OTD Westbound Access			Aug 2009	Aug 2009	-	●	
YBI Detour Open			Sep 2009	Sep 2009	-	●	See Page 15
Antioch Bridge Seismic Retrofit							
Contract Completion			Jul 2012	Jul 2012	-	●	See Page 32
Seismic Safety Completion			Apr 2012	Apr 2012	-	●	
Dumbarton Bridge Seismic Retrofit							
Contract Completion			Sep 2013	Sep 2013	-	●	See Page 34
Seismic Safety Completion			Sep 2013	Sep 2013	-	●	

● Within approved schedule and budget
● Identified potential project risks that could significantly impact approved schedules and budgets if not mitigated
● Known project impacts with forthcoming changes to approved schedules and budgets

(1) Figures may not sum up to totals due to rounding effects.
(2) Construction administration of the OTD Detour is under the YBITS#1 contract.
(3) Construction administration of the Cantilever segment will be under the YBITS#2 contract.

Regional Measure 1 Program Cost Summary (Millions)

	Contract Status	BATA Baseline Budget (July 2005)	BATA Approved Changes	Current BATA Approved Budget (April 2012)	Cost to Date (March 2012)	Current Cost Forecast (April 2012)	Cost Variance	Cost Status
		a	b	c = a + b	d	e	f = e - c	
Interstate 880/Route 92 Interchange Reconstruction								
Capital Outlay Construction	Complete	94.8	68.4	163.2	150.2	163.2	-	●
Capital Outlay Support		28.8	35.8	64.6	62.2	64.6	-	●
Capital Outlay Right-of-Way		9.9	7.3	17.2	14.7	17.2	-	●
Project Reserve		0.3	(0.3)	-	-	-	-	
Total I-880/SR-92 Interchange Reconstruction		133.8	111.2	245.0	227.1	245.0	-	
Other Completed Program Projects		1,978.8	182.6	2,161.4	2,089.0	2,161.4	-	
Total Regional Measure 1 Toll Bridge Program [1]		2,112.6	293.8	2,406.4	2,316.1	2,406.4	-	

● Within approved schedule and budget
● Identified potential project risks that could significantly impact approved schedules and budgets if not mitigated
● Known project impacts with forthcoming changes to approved schedules and budgets
[1] Figures may not sum up to totals due to rounding effects.

Regional Measure 1 Program Schedule Summary (Millions)

	BATA Baseline Completion Schedule (September 2005)	BATA Approved Changes (Months)	Current BATA Approved Completion Schedule (April 2012)	Current Completion Forecast (April 2012)	Schedule Variance (Months)	Schedule Status	Remarks/Notes
	g	h	i=g+h	j	k=j-i	l	
Interstate 880/Route 92 Interchange Reconstruction							
Contract Completion							
Interchange Reconstruction	Dec 2010	9	Sep 2011	Sep 2011	-	●	See Page 41

Cable Compaction in Progress

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge Seismic Retrofit Strategy

When a 250-ton section of the upper deck of the East Span collapsed during the 7.1-magnitude Loma Prieta Earthquake in 1989, it was a wake-up call for the entire Bay Area. While the East Span quickly reopened within a month, a critical question lingered: How could the Bay Bridge - a vital regional lifeline structure - be strengthened to withstand the next major earthquake? Seismic experts from around the world determined that to make each separate element seismically safe on a bridge of this size, the work must be divided into numerous projects. Each project presents unique challenges. Yet there is one common challenge - the need to accommodate the more than 280,000 vehicles that cross the bridge each day.

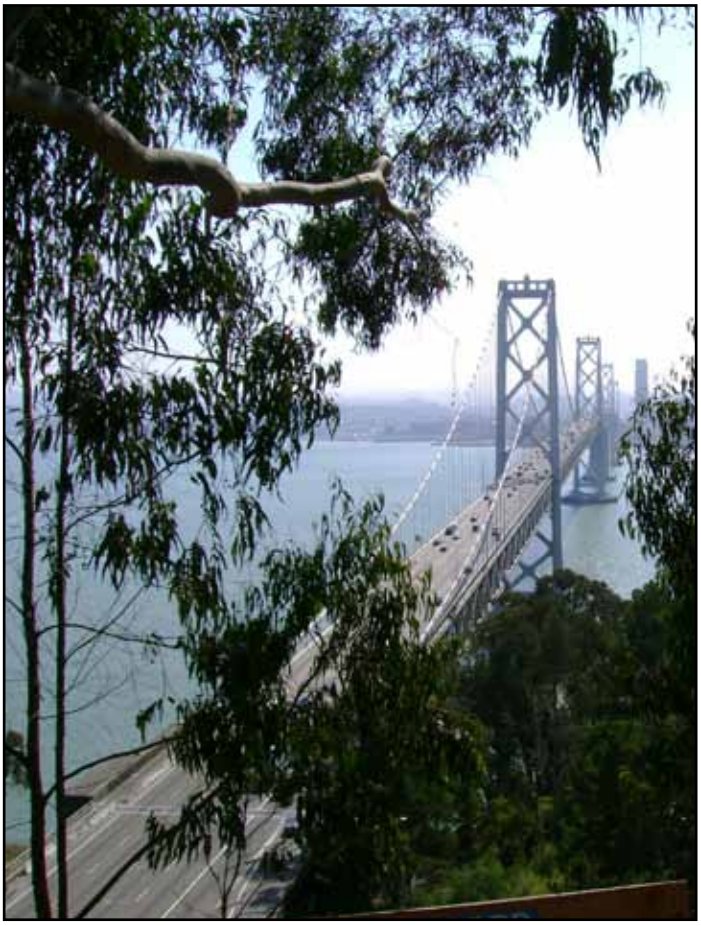
West Approach Overview

West Approach Seismic Replacement Project
Project Status: Completed 2009

Seismic safety retrofit work on the West Approach in San Francisco, bounded on the west by 5th Street and on the east by the anchorage of the west span at Beale Street, involved completely removing and replacing this one-mile stretch of Interstate 80, as well as six on and off-ramps within the confines of the West Approach's original footprint. This project was completed on April 8, 2009.

West Span Seismic Retrofit Project
Project Status: Completed 2004

The West Span lies between Yerba Buena Island and San Francisco and is made up of two complete suspension spans connected at a center anchorage. Retrofit work included adding massive amounts of steel and concrete to strengthen the entire West Span, along with new seismic shock absorbers and bracing.



San Francisco-Oakland Bay Bridge West Span

East Span Seismic Replacement Project
Project Status: In Construction

Rather than a seismic retrofit, the two-mile long East Span is being completely rebuilt. When completed, the new East Span will consist of several different sections, but will appear as a single streamlined span. The eastbound and westbound lanes of the East Span will no longer include upper and lower decks. The lanes will instead be side-by-side, providing motorists with expansive views of the bay. These views will also be enjoyed by bicyclists and pedestrians, thanks to a new bike path on the south side of the bridge that will extend all the way to Yerba Buena Island. The new span will be aligned north of the existing bridge to allow traffic to continue to flow on the existing bridge as crews build the new span.

The new span will feature the world's longest Self-Anchored Suspension (SAS) bridge that will be connected to an elegant roadway supported by piers (Skyway), which will gradually slope down toward the Oakland shoreline (Oakland Touchdown). A new transition structure on Yerba Buena Island (YBI) will connect the SAS to the YBI Tunnel and will transition the East Span's side-by-side traffic to the upper and lower decks of the tunnel and West Span.

When construction of the new East Span has been completed and vehicles have been safely rerouted to it, the original East Span will be demolished.

Architectural Rendering of the New East Span of the San Francisco-Oakland Bay Bridge

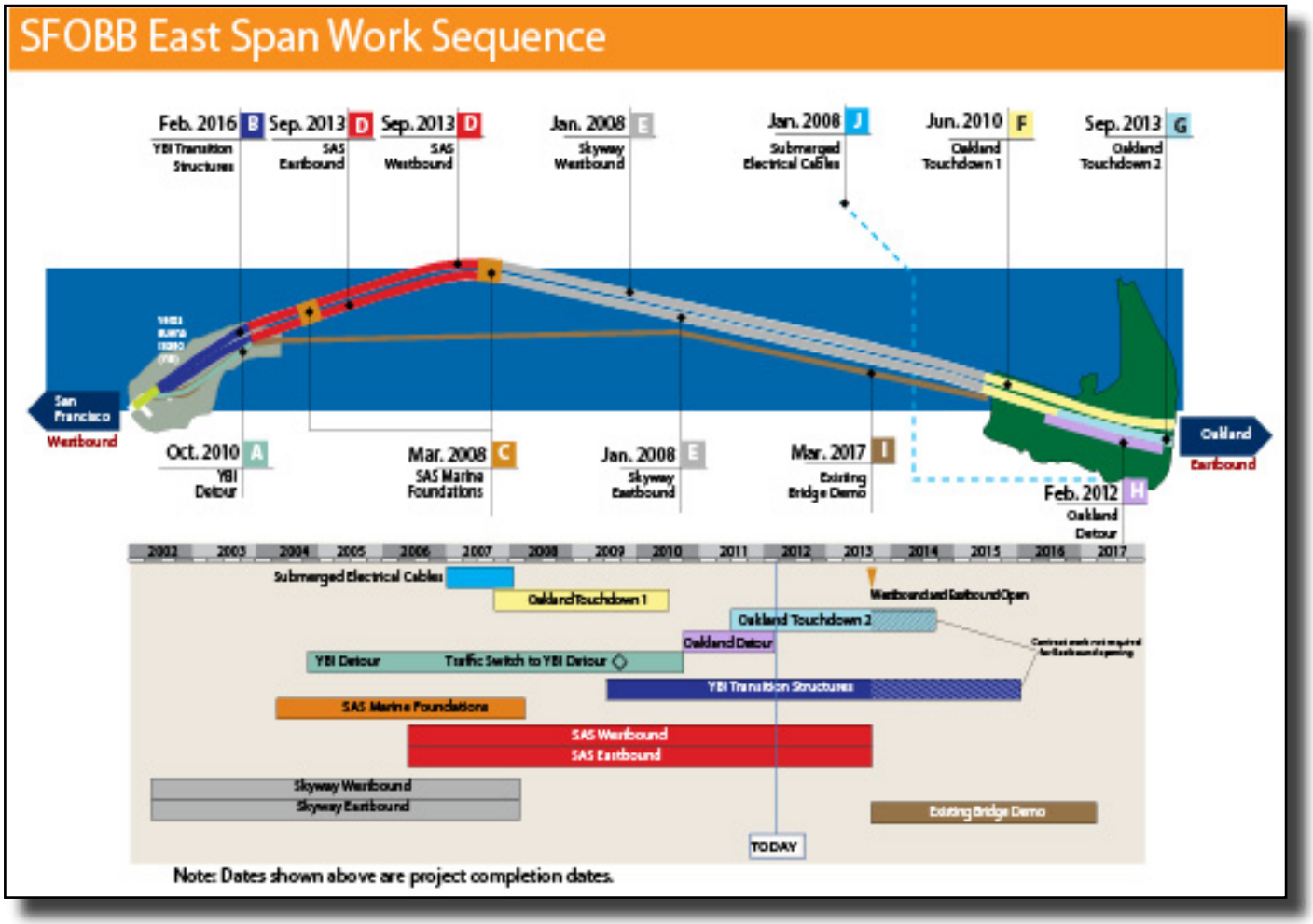
TOLL BRIDGE SEISMIC RETROFIT PROGRAM

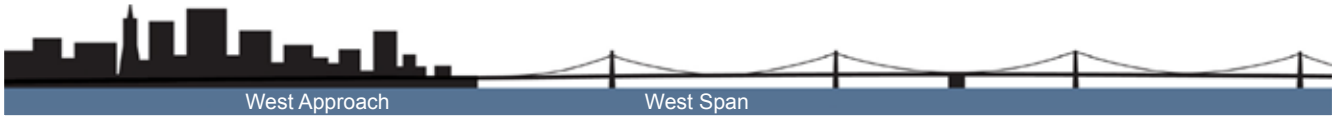
San Francisco-Oakland Bay Bridge East Span Replacement Project Summary

The new East Span bridge can be split into four major components - the Skyway, the Self-Anchored Suspension bridge in the middle, the Yerba Buena Island Transition Structures and Oakland Touchdown approaches. Each component is being constructed by one to three separate contracts that have been sequenced together to reduce schedule risk.

Highlighted below are the major East Span contracts and their schedules. The letter designation before each contract corresponds to contract descriptions in the report.

Overview of the San Francisco-Oakland Bay Bridge East Span Construction Progress





TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project
Yerba Buena Island Detour (YBID)

As with all of the Toll Bridge Seismic Retrofit Program's projects, crews built the Yerba Buena Island Detour structure (YBID) without disrupting traffic. To accomplish this task, YBID eastbound and westbound traffic was shifted off the existing roadway and onto a temporary detour over Labor Day weekend 2009. Drivers will use this detour, just south of the original roadway, until traffic is moved onto the new East Span.

A YBID Contract

Contractor: C.C. Myers, Inc.

Approved Capital Outlay Budget: $492.8 M

Status: Completed October 2010

This contract was originally awarded in early 2004 to construct the detour structure for the planned 2006 opening of the new East Span. Because of a lack of funding, the SAS Superstructure contract was re-advertised in 2005 and the opening was rescheduled to 2013. To better integrate the contract into the current East Span schedule and to improve seismic safety and mitigate future construction risks, the TBPOC approved a number of changes to the contract, including adding the deck replacement work near the tunnel that was rolled into place over the 2007 Labor Day weekend advancing future transition structure foundation work and making design enhancements to the temporary detour structure. These changes increased the budget and forecast for the contract to cover the revised project scope and reduce project risks.

YBID East Tie-In Rolled in on Labor Day 2009 Weekend

West Tie-In Phase #1 Rolled in on Labor Day Weekend 2007

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project
Yerba Buena Island Transition Structures (YBITS)

The new Yerba Buena Island Transition Structures contract (YBITS) will connect the new SAS bridge span to the existing Yerba Buena Island Tunnel, transitioning the new side-by-side roadway decks to the upper and lower decks of the tunnel. The new structures will be cast-in-place reinforced concrete structures that will look very similar to the already constructed Skyway structures. While some YBITS foundations and columns were advanced by the YBID contract, the remaining work is being completed under three separate YBITS contracts.

B YBITS #1 Contract

Contractor: MCM Construction, Inc.
Approved Capital Outlay Budget: $199.7 M
Status: 56% Complete as of April 2012

The YBITS #1 contract will construct the mainline roadway structure from the SAS bridge to the YBI tunnel. On February 4, 2010, Caltrans awarded the YBITS #1 contract to MCM Construction, Inc.

Status: The construction of the westbound roadway deck was completed in February 2012. Westbound falsework was removed and modified for use for the eastbound roadway deck in April 2012. The eastbound roadway construction began in late December 2011 and will be completed to Hinge K and turned over to American Bridge Fluor (ABF) by the end of 2012.

YBITS #2 Contract

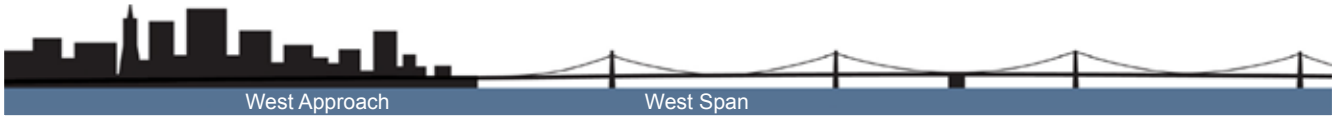
Contractor: TBD
Approved Capital Outlay Budget: $59.0 M
Status: Advertised

The YBITS #2 contract will demolish the detour viaduct after all traffic is shifted to the new bridge and will construct a new eastbound on-ramp to the bridge in its place. The new ramp will also provide the final link for bicycle/pedestrian access off the SAS bridge onto Yerba Buena Island. To expedite opening of a new eastbound on-ramp and the pedestrian/bicycle pathway from Yerba Buena Island, the TBPOC has decided to split the bridge dismantling project into at least two contracts. The dismantling of the superstructure of the main cantilever section of the existing bridge will be incorporated into the YBITS #2 contract, while the remaining portions of the existing bridge will be removed by separate contract or contracts yet to be determined. The YBITS #2 contract, including the cantilever truss demolition, was advertised on April 9, 2012, and bid opening is forecast for September 25, 2012.

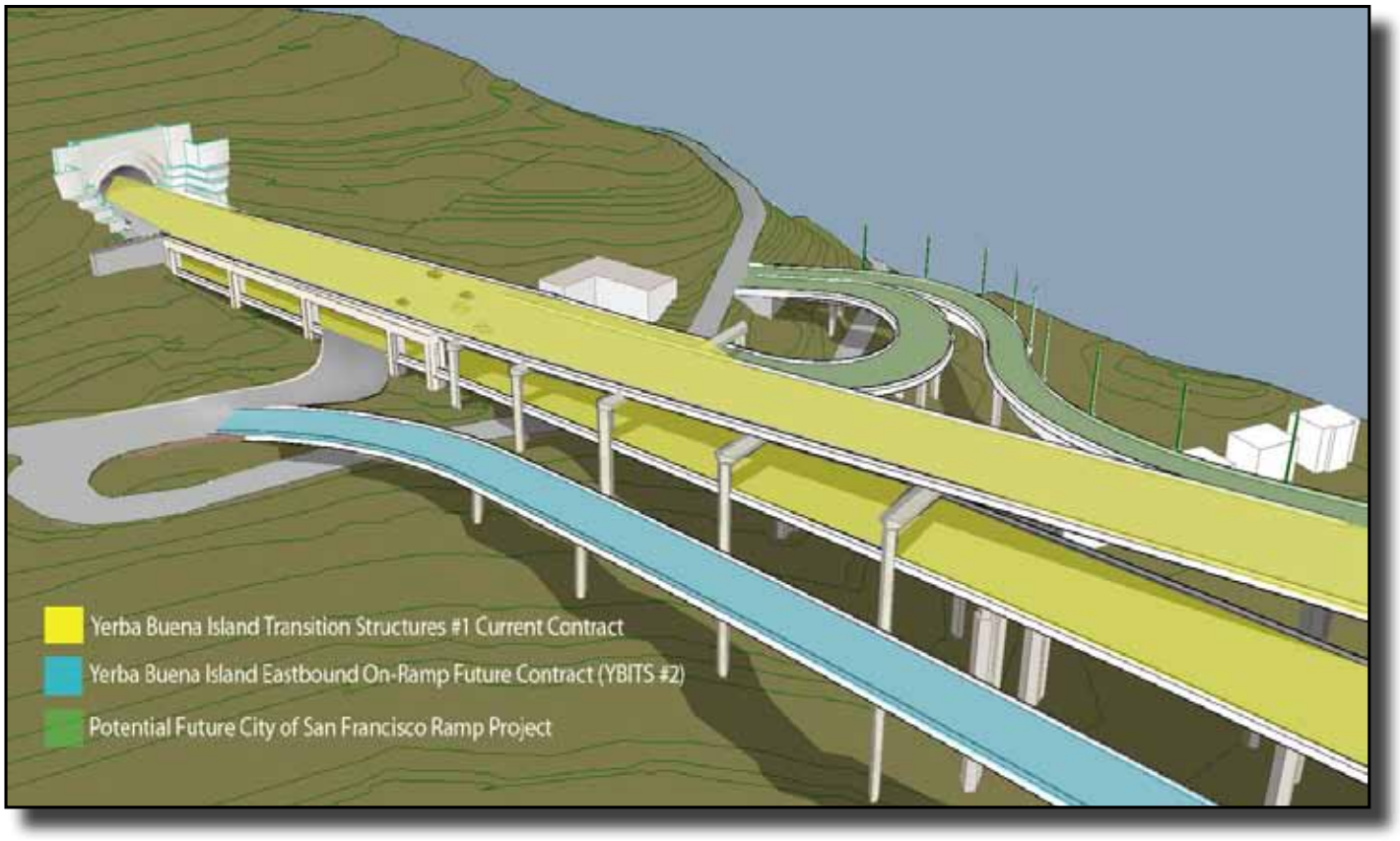
YBITS Landscaping Contract

Contractor: TBD
Approved Capital Outlay Budget $3.3 M
Status: In Design

Upon completion of the YBITS work, a follow-on landscaping contract will be executed to replant and landscape the area.



YBITS #1 Roadway Deck Construction in Progress



TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Self-Anchored Suspension (SAS) Bridge

If one single element bestows world class status on the new Bay Bridge East Span, it is the Self-Anchored Suspension (SAS) bridge. This engineering marvel will be the world's largest SAS span at 2,047 feet in length, as well as the first bridge of its kind built with a single tower.

The SAS was separated into three separate contracts - construction of the land-based foundations and columns at pier W2; construction of the marine-based foundations and columns at piers T1 and E2; and construction of the SAS steel superstructure, including the tower, roadway and cabling. Construction of the foundations at pier W2 and at piers T1 and E2 was completed in 2004 and 2007, respectively.

SAS Marine Foundation - E2 Foundation with Completed Westbound Column

SAS Land Foundation Contract

Contractor: West Bay Builders, Inc.
Approved Capital Outlay Budget: $26.5 M
Status: Completed October 2004

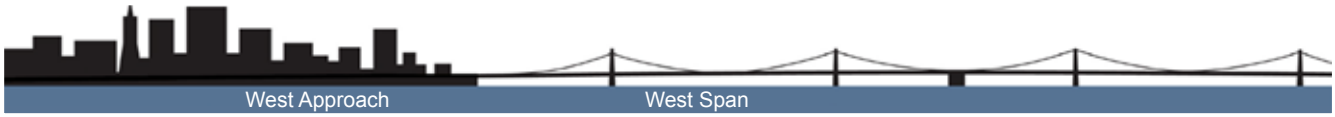
The twin W2 columns on Yerba Buena Island provide essential support for the western end of the SAS bridge, where the single main cable for the suspension span will extend down from the tower and wrap around and under the western end of the roadway deck. Each of these huge columns required massive amounts of concrete and steel and are anchored 80 feet into the island's solid bedrock.

C SAS Marine Foundations Contract

Contractor: Kiewit/FCI/Manson, Joint Venture
Approved Capital Outlay Budget: $278.6 M
Status: Completed January 2008

Construction of the piers at E2 and T1 (see rendering on facing page) required significant on-water resources to drive the foundation support piles down, not only to bedrock, but also through the bay water and mud.

The T1 foundation piles extend 196 feet below the waterline and are anchored into bedrock with heavily reinforced concrete rock sockets that are drilled into the rock. Driven nearly 340 feet deep, the steel and concrete E2 foundation piles were driven 100 feet deeper than the deepest timber piles of the existing east span in order to get through the bay mud and reach solid bedrock.



D SAS Superstructure Contract

Contractor: American Bridge/Fluor Enterprises, Joint Venture
Approved Capital Outlay Budget: $2.05 B
Status: 84% Complete as of April 2012

The SAS bridge is not just another suspension bridge. Rising 525 feet above mean sea level and embedded in bedrock, the single-tower SAS span is designed to withstand a massive earthquake. Traditional main cable suspension bridges have twin cables with smaller suspender cables connected to them. While there will appear to be two main cables on the SAS, it is actually a single continuous cable. This single cable will be anchored within the eastern end of the roadway, carried over the tower and then wrapped around the two side-by-side decks at the western end.

The single-steel tower is made up of four separate legs connected by shear link beams which function much like a fuse in an electrical circuit. These beams will absorb most of the impact from an earthquake, preventing damage to the tower legs.

The next several pages highlight the construction sequence of the SAS and are followed by detailed updates on specific construction activities.

Architectural Rendering of New Self-Anchored Suspension Span and Skyway

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Self-Anchored Suspension (SAS) Construction Sequence

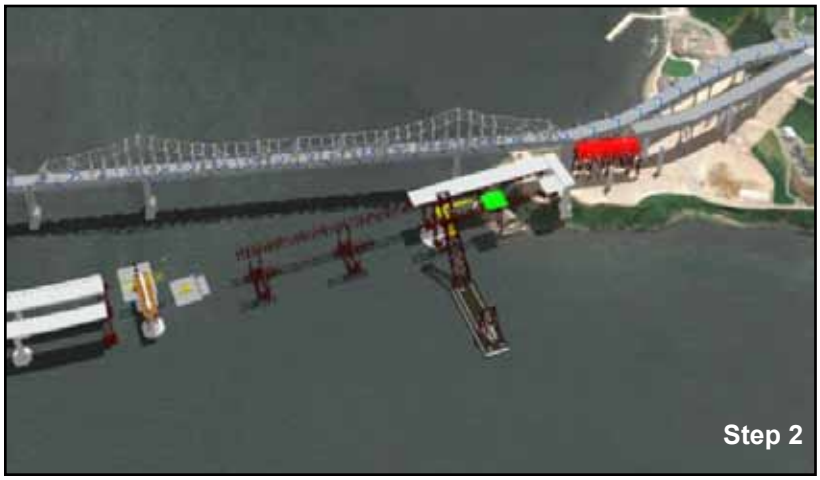
STEP 1 - CONSTRUCT TEMPORARY SUPPORT STRUCTURES

All temporary support foundations and structures were completed in September 2010 between the Skyway and Yerba Buena Island to support the westbound and eastbound roadway box erections.

STEP 2 - INSTALL ROADWAYS

All of the 28 steel roadway boxes and 17 crossbeams have been erected as of the end of October 2011.

Status: Roadway deck interior field painting continues. Bike path railing and steel barrier installation continues on the roadway deck along with mechanical, electrical and piping installation.



STEP 3 - INSTALL TOWER

All tower legs, tower grillage and tower saddle were erected using the self-rising crane as of mid-May 2011. The tower head will be installed after cable erection and suspenders have been completed in mid 2012.

Status: Mechanical, electrical and piping installation continues in the tower. Nondestructive Testing (NDT) and repair of the tower base shear plate welding is ongoing. Welding of the 13-meter diaphragm to the shear plate continues.

STEP 4 - MAIN CABLE AND SUSPENDER INSTALLATION

The main cable haul started in late December 2011 from the east end of the westbound roadway deck moving over the tower saddle, wrapping around pier W2 west deviation saddles and returning to the tower saddle to the east end of eastbound roadway deck where it will then be anchored. Suspender cables (114) will be added after all 137 cable bundles have been hauled, compacted and cable bands installed to lift the roadway deck off the temporary support structure.

Status: The parallel wire strand (PWS) cable installation was completed on April 9, 2012. Compaction started on April 16, 2012, and will be completed in May 2012, with the exception of the swing-out cable portions.

STEP 5 - WESTBOUND AND EASTBOUND SEISMIC SAFETY OPENING

The new bridge will now open simultaneously in both the westbound and eastbound directions on Labor Day September 2, 2013.

Status: The Yerba Buena Island Transition Structures (YBITS) #1 contract is currently in progress. Oakland Touchdown (OTD) #2 will begin construction in mid-2012. The Self-Anchored Suspension (SAS) segment is in progress and construction is scheduled to be complete and ready for seismic safety opening in both east and west directions by September 2013.

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Self-Anchored Suspension (SAS) Superstructure Fabrication Activities

Roadway and Tower Segments

Like giant three-dimensional jigsaw puzzles, the roadway and tower lifts of the SAS bridge are hollow steel shells that are internally strengthened and stiffened by a highly engineered network of welded steel ribs and diaphragms. The use of steel in this manner allows for a strong and yet relatively light and flexible structure to withstand the massive loads placed on the bridge during seismic events.

All components underwent a rigorous quality review by ZPMC, ABF, and Caltrans to ensure that only bridge components that have been built according to contract specifications will be shipped.

Roadway Box Fabrication Status: Roadway boxes 1 through 14 east and west have all been fabricated by ZPMC and erected by the contractor, ABF.

Tower Fabrication Status: All tower components have been fabricated by ZPMC and erected by the contractor, ABF.

Cables and Suspenders

One continuous main cable will be used to support the roadway deck of the SAS bridge. The main cable installation will start from the east end of the westbound roadway boxes of the SAS near pier E2, then extend west over the northeast saddle towards the tower saddle at T1. It will then loop around pier W2 westbound deviation saddle, extend through the jacking beam saddle and extend around the eastbound deviation saddle at W2 over the tower saddle at T1 again to the southeast saddle and finally anchor within the eastbound roadway box near pier E2. The main cable is made up of 137 bundles of wire strands and a 114 suspender cables will connect the roadway decks to the main cable.

Status: All main cable parallel wire strands (PWS), cable bands and the suspender cables have been fabricated and are at the job site.

Off Loading the Final Four Roadway Boxes at Pier 7 in Oakland

Saddles, Bearings, Hinges, and Other Bridge Components

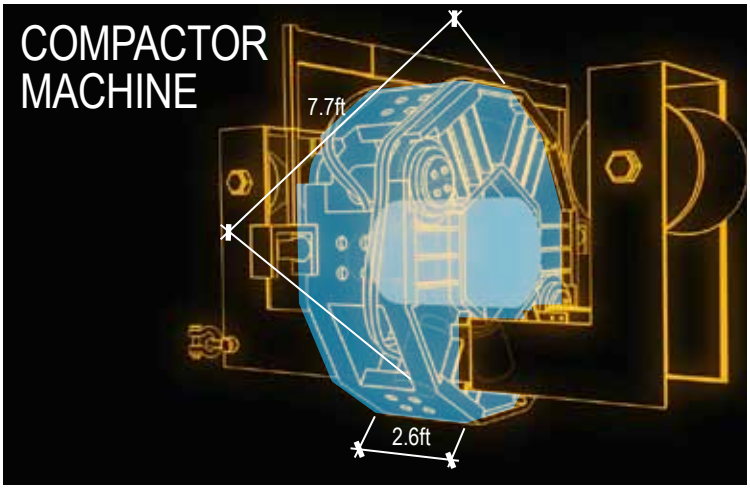
The mounts on which the main cable and suspender ropes will sit are solid steel castings. Castings for the main cable saddles were made by Japan Steel Works, while the cable bands and brackets are being made by Goodwin Steel in the United Kingdom.

The bridge bearings and hinges that support, connect, and transfer loads from the Self-Anchored Suspension (SAS) Span to the adjoining sections of the new east span are being fabricated in a number of locations. Work on the bearings is being performed in Pennsylvania, USA and Hochang, South Korea, while hinge pipe beams are being fabricated in Oregon, USA.

Status: The Hinge K pipe beams have been fabricated and installed and Hinge A seismic expansion joints were completed in February 2012. The SAS traveler rails and the Skyway bike path railings and crushable zone arrived in early December 2011. The anchor rods have been fabricated and installed in roadway boxes 13 east and west.

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Self-Anchored Suspension (SAS) Superstructure Cable Compaction Activities



Compaction is the second major step in the installation of the Self-Anchored Suspension Span's single main cable. The first was hauling the cable's 137 individual steel wire strands, which crews completed on April 9, 2012.

Four compactor machines have been working to compress the mile-long strands together with pressures up to 9,350 psi (pounds per square inch). Each steel compactor machine contains six hydraulic jacks and weighs 30,000 pounds. The hexagon-shaped compactors are 2.3 meters (7.7 feet) in diameter and .8 meters (2.6 feet) wide.

The compaction process begins at the top of the 525-foot-tall SAS tower with the machines moving 1.5 meters (4.9 feet) at a time. Once compressed to a precise diameter, temporary stainless steel seizing bands are then placed around the cable at 1.5-meter intervals to hold it in place. The strands are also compacted between the jacking and deviation saddles as the strands pass around the western end of the span. The cable is not compacted at the top of the tower as the individual strands pass through a cable saddle.

The custom-made compactors were designed by American Bridge/Fluor (a Joint Venture), the prime contractor building the SAS. The compactors were built by Jesse Engineering of Tacoma, Wash., with the jacks supplied by Enerpac of Menomonee Falls, Wisconsin.

After compaction is completed, work will begin on installing the 114 cable bands, which serve as anchor points for the suspender cables that will be installed on the main cable in May 2012.

Status: All cable bands are forecast to be installed and tensioned in the month of May 2012. Suspender installation is also forecast to start in late May 2012.

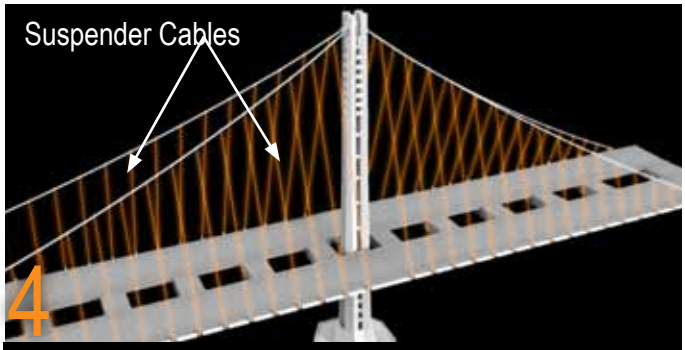
TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Self-Anchored Suspension (SAS) Superstructure Main Cable Completion Activities

1

CABLE STRAND HAULING

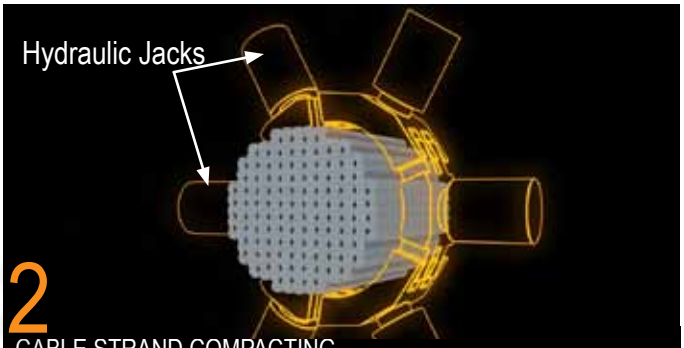
Crews haul the 137 individual steel wire strands that comprise the nearly 1-mile long single main cable. The strands are adjusted and then anchored into the east end of the SAS.



4

SUSPENDER CABLES INSTALLED

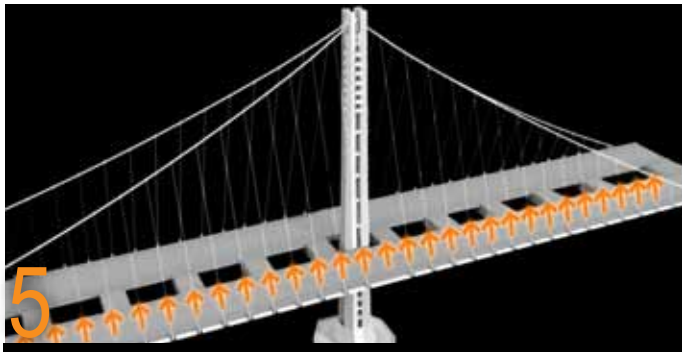
Workers begin placing the suspender cables that connect the main cable to the road-decks. Not all of the suspender cables need to be attached before load transfer begins.



2

CABLE STRAND COMPACTING

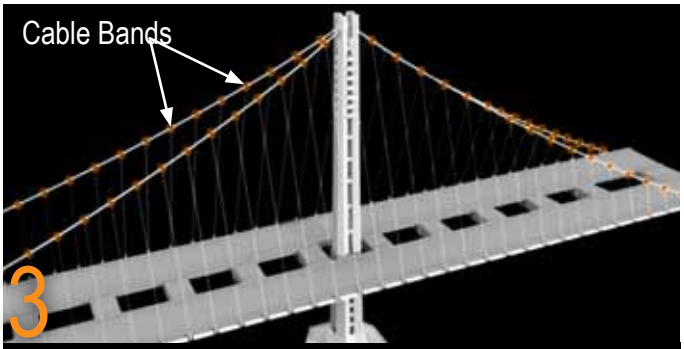
Four compacting machines containing hydraulic jacks are used to compress the 137 steel wire strands into the shape of the main cable. Temporary bands are placed to maintain the shape.



5

LOAD TRANSFER

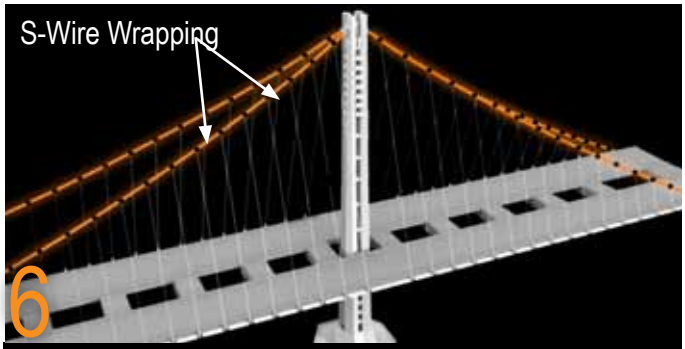
Using the attached suspender cables, crews begin the process of transferring the weight of the span from the temporary supports under the bridge to the main cable.



3

CABLE BANDS INSTALLED

Crews install 114 permanent steel cable bands along the main cable. These bands maintain the shape of the cable, and serve as anchor points for the suspender cables.



6

S-WIRE WRAP

After load transfer, the main cable is wrapped in S-wire to protect the cable against corrosion. After the cable is wrapped, it is painted.

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project
Skyway

The Skyway, which comprises much of the new East Span, will drastically change the appearance of the Bay Bridge. Replacing the gray steel that currently cages drivers, a graceful, elevated roadway supported by piers will provide sweeping views of the bay.

E Skyway Contract

Contractor: Kiewit/FCI/Manson, Joint Venture
Approved Capital Outlay Budget: $1.25 B
Status: Completed April 2008

Extending for more than a mile across Oakland mudflats, the Skyway is the longest section of the East Span. It sits between the new Self-Anchored Suspension (SAS) span and the Oakland Touchdown. In addition to incorporating the latest seismic-safety technology, the side-by-side roadway decks of the Skyway feature shoulders and lane widths built to modern standards.

The Skyway's decks are composed of 452 pre-cast concrete segments (standing three stories high), containing approximately 200 million pounds of structural steel, 120 million pounds of reinforcing steel, 200 thousand linear feet of piling and about 450 thousand cubic yards of concrete. These are the largest segments of their kind ever cast and were lifted into place by custom-made winches.

The Skyway marine foundation consists of 160 hollow steel pipe piles measuring eight feet in diameter and dispersed among 14 sets of piers. The 365-ton piles were driven more than 300 feet into the deep bay mud. The new East Span piles were battered or driven in at an angle, rather than vertically, to obtain maximum strength and resistance.

Designed specifically to move during a major earthquake, the Skyway features several state-of-the-art seismic safety innovations, including 60-foot-long hinge pipe beams. These beams will allow deck segments on the Skyway to move, enabling the deck to withstand greater motion and to absorb more earthquake energy.

Skyway on the left and Existing Bridge on the Right Looking East toward Oakland

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project
Oakland Touchdown

When completed, the Oakland Touchdown (OTD) structures will connect Interstate 80 in Oakland to the new side-by-side decks of the new East Span. For westbound drivers, the OTD will be their introduction to the graceful new East Span. For eastbound drivers from San Francisco, this section of the bridge will carry them from the Skyway to the East Bay, offering unobstructed views of the Oakland hills.

The OTD approach structures to the Skyway will be constructed in three phases. The first phase, constructed under the OTD #1 contract, built the new westbound approach structure. Due to physical constraints with the existing bridge, the OTD #1 contract was only able to construct a portion of the eastbound approach. To facilitate opening the bridge in both directions at the same time, the current phase of work, performed by the Oakland Detour contractor, is widening the upper deck of the Oakland end of the existing bridge to allow for a traffic shift to the north that removes the physical constraint to completing the eastbound structure. The third phase, to be constructed by a future OTD #2 contract, will complete the eastbound lanes and provide the traffic switch to the new structure in both directions. This will allow the bridge to open simultaneously in both directions.

F Oakland Touchdown #1 Contract

Contractor: MCM Construction, Inc.
Approved Capital Outlay Budget: $212.0 M
Status: Completed June 2010

The OTD #1 contract constructed the entire 1,000-foot-long westbound approach from the toll plaza to the Skyway. When open to traffic, the westbound approach structure will provide direct access to the westbound Skyway. In the eastbound direction, the contract constructed a portion of the eastbound structure and all of the eastbound foundations that are not in conflict with the existing bridge.

Status: MCM Construction, Inc. completed OTD #1 westbound and eastbound phase 1 on June 8, 2010.

G Oakland Touchdown #2 Contract

Contractor: TBD
Approved Capital Outlay Budget: $62.0 M
Status: In Design

The OTD #2 contract will complete the eastbound approach structure from the end of the Skyway to Oakland. This work is critical to the eastbound opening of the new bridge by September 2013.

Status: The TBPOC approved an acceleration plan to construct a detour at the Oakland end of the bridge to allow for expedited construction of the OTD #2 contract. OTD #2 was advertised on March 12, 2012, and was awarded on March 29, 2012. Construction will begin on June 25, 2012.

Aerial View of the Eastbound Oakland Detour with the EBMUD Outfall Crossing Structure on the left and the Westbound Oakland Detour Open to Traffic

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project
Oakland Detour

H Oakland Detour

Contractor: MCM Construction, Inc.
Approved Capital Outlay Budget: $51.0 M
Status: 100% Complete as of April 2012

To ensure a simultaneous eastbound and westbound opening of the bridge by September 2013, the TBPOC has approved an acceleration plan that will construct a detour at the Oakland end of the bridge to allow for expedited construction of the OTD #2 contract. The detour realigns the existing bridge approach to the south to allow for construction of the remaining portion of OTD that was in conflict with the existing bridge.

Status: The westbound detour construction is complete and was opened to traffic on February 19, 2012. Existing pier demolition and cleanup was completed in April 2012.

Oakland Detour Westbound Expansion Structure

Oakland Westbound Detour (Looking East) AC Asphalt Installed

Preparation for Demolition of the Existing Westbound Partial Structure

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

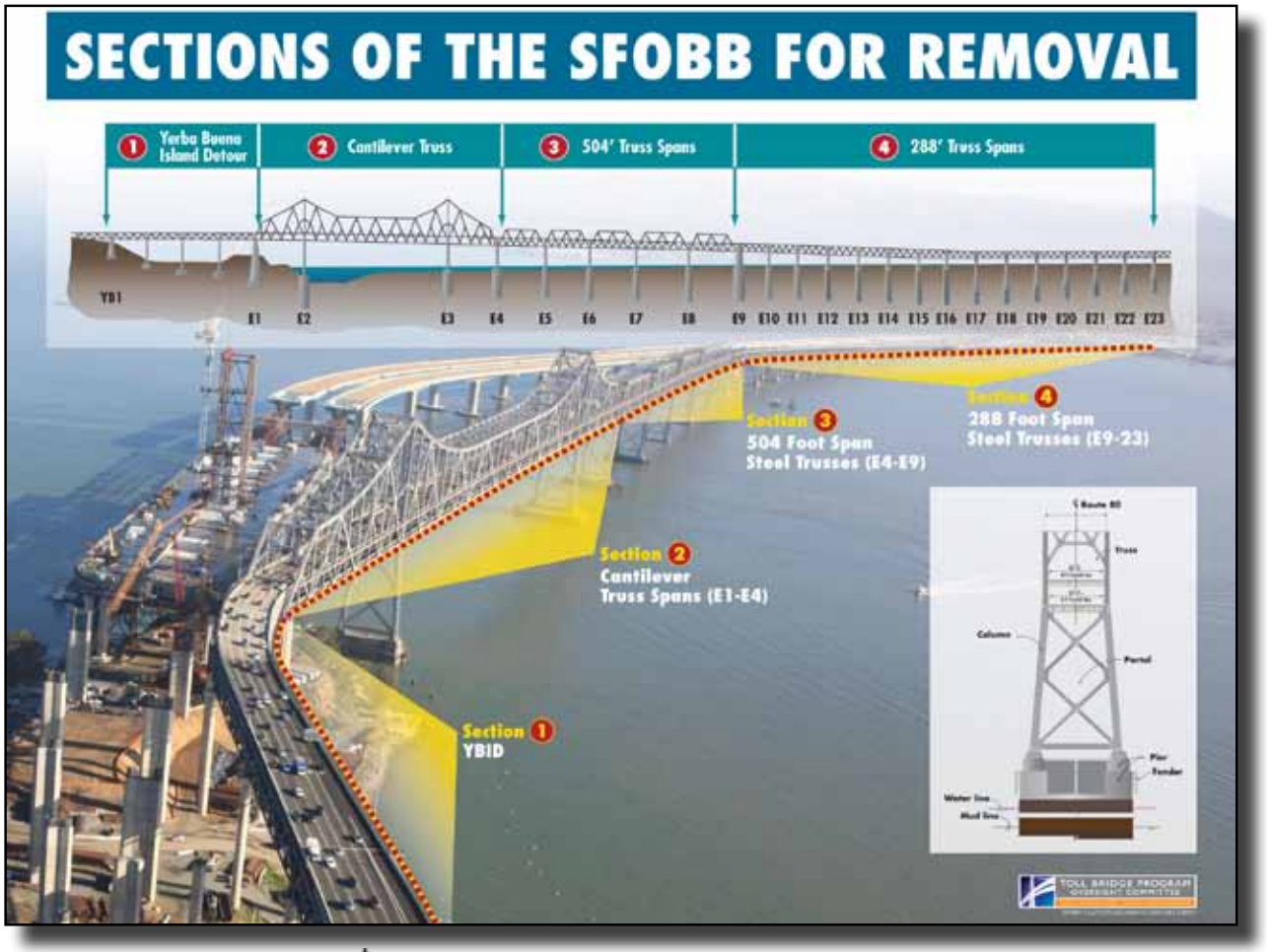
San Francisco-Oakland Bay Bridge East Span Replacement Project
Existing East Span Bridge Demolition

I Existing East Span Demolition

Contractor: TBD
Approved Capital Outlay Budget: $239.1 M
Status: In Design

Design work on the demolition of the existing bridge is ongoing. The environmental clearance and all permits were received on February 29, 2012. To expedite the opening of a new eastbound on-ramp and the pedestrian/bicycle pathway from Yerba Buena Island to Oakland, the TBPOC has decided to split the existing bridge dismantling project into at least two contracts. The dismantling of the superstructure of the main cantilever section of the existing east span of the bridge will be incorporated into the YBITS #2 contract, while the remaining portions will be removed by separate contract or contracts yet to be determined for the superstructure and marine foundations.

Dismantling Scope Included in the Future YBITS#2 Contract - YBI Detour at left, E-1 column in center, Cantilever Bridge Deck at right



TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project
Other Contracts

A number of contracts needed to relocate utilities, clear areas of archeological artifacts, and prepare areas for future work have already been completed. The last major contract will be the eventual demolition and removal of the existing bridge, which by that time will have served the Bay Area for nearly 80 years. Following is a status of some the other East Span contracts.

Archeological Investigations

J Electrical Cable Relocation

Contractor: Manson Construction
Approved Capital Outlay Budget: $9.6 M
Status: Completed January 2008

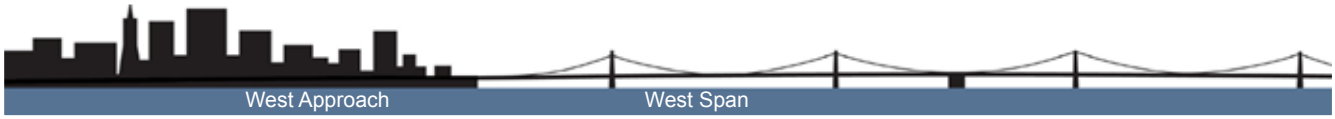
A submerged cable from Oakland that is close to where the new bridge will touch down supplies electrical power to Treasure Island. To avoid any possible damage to the cable during construction, two new replacement cables were run from Oakland to Treasure Island. The extra cable was funded by the Treasure Island Development Authority.

New YBI Electrical Substation

Yerba Buena Island Substation

Contractor: West Bay Builders
Approved Capital Outlay Budget: $11.6 M
Status: Completed May 2005

This contract relocated an electrical substation just east of the Yerba Buena Island Tunnel in preparation for the new East Span.



Stormwater Treatment Measures

Contractor: Diablo Construction, Inc.
Approved Capital Outlay Budget: $18.3 M
Status: Completed December 2008

The Stormwater Treatment Measures contract implemented a number of best practices for the management and treatment of stormwater runoff. Focused on the areas around and approaching the toll plaza, the contract added new drainage and built new bio-retention swales and other related constructs.

Stormwater Retention Basin

East Span Interim Seismic Retrofit

Contractors: 1) California Engineering
2) Balfour Beatty
Approved Capital Outlay Budget: $30.8 M
Status: Completed October 2000

After the 1989 Loma Prieta Earthquake, and before the final retrofit strategy was determined for the East Span, Caltrans completed an interim retrofit of the existing bridge to prevent a catastrophic collapse of the bridge should a similar earthquake occur before the East Span was completely replaced. The interim retrofit was performed under two separate contracts that lengthened pier seats, added some structural members, and strengthened areas of the bridge so they would be more resilient during an earthquake.

Existing East Span of the San Francisco-Oakland Bay Bridge

Pile Installation Demonstration

Contractor: Manson and Dutra, Joint Venture
Approved Capital Outlay Budget: $9.2 M
Status: Completed December 2000

While large-diameter battered piles are common in offshore drilling, the new East Span is one of the first bridges to use them in its foundations. To minimize project risks and build industry knowledge, a pile installation demonstration project was initiated to prove the efficacy of the proposed technology and methodology. The demonstration was highly successful and helped result in zero contract change orders or claims for pile driving on the project.

Battered Pile Installation Demonstration

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Antioch Bridge Seismic Retrofit Project

Contractor: California Engineering Contractors, Inc.
Approved Capital Outlay Budget: $51.0 M
Status: Seismically Complete as of April 12, 2012

Serving the Delta region of the Bay Area, the Antioch Bridge takes State Route 160 traffic over the San Joaquin River, linking eastern Contra Costa County with Sacramento County. The current 1.8-mile-long steel plate girder bridge was opened in 1978 with one lane in each direction. The major retrofit measure for the bridge includes installing seismic isolation bearings at each of the 41 piers, strengthening piers 12 through 31 with steel cross-bracing between column bents, and installing steel casings at all columns located at the Sherman Island approach slab bridge.

Status: Seismic safety was achieved on April 12, 2012and contract completion is forecast for July 2012.

Seismic isolation bearings will allow the superstructure of the bridge to move independently from the pier and column substructure during an earthquake. All seismic isolation bearings have been fabricated, tested, and installed (100%).

At piers 12 through 31, center steel cross-bracing is being added between the pier columns to strengthen the pier. The work requires off-site fabrication of the steel cross-bracing and on-site preparation of the existing columns to ensure proper bond with the new bracing. Installation of cross-bracing has been completed at all 20 piers.

Columns supporting the approach slab bridge located on Sherman Island are being strengthened with steel column casing jackets. There are a total of 116 columns that have been retrofitting with steel casing jackets. The approach slab bridge expansion joints have been retrofitted with seat extenders. All of the 12 seat extenders have been installed.

Landscaping at the south end of the bridged is 100% complete and the 60-day plant establishment period ended April 26, 2012.

In addition to the retrofit work, seismic monitoring equipment is being installed to provide ground and structure motion information during future seismic events. The monitoring equipment is being installed at 250, 160, 80, 50, 20 and 4 feet below the ground surface (93% complete).

Temporary Contract Yard Removal

Temporary Roadway Removal Started May 15, 2012

Antioch Bridge Installing Cross Bracing as Part of the Seismic Retrofit Construction

Antioch Bridge with Completed Cross Bracings

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Dumbarton Bridge Seismic Retrofit Project

Contractor: Shimmick Construction Company, Inc.

Approved Capital Outlay Budget: $92.7 M

Status: 61% Complete as of April 2012

The current Dumbarton Bridge was opened to traffic in 1982 linking the cities of Newark in Alameda County and East Palo Alto in San Mateo County. The 1.6-mile long bridge has six lanes (three in each direction) and an eight-foot-wide bicycle/pedestrian pathway. The bridge is a combination of three bridge types; reinforced concrete slab approaches supported on multiple pile extension columns, precast-prestressed concrete delta girders and steel box girders supported on reinforced concrete piers. The current retrofit strategy for the bridge includes superstructure and deck modifications and installation of isolation bearings.

Status: The main bridge structure between piers 16-31 will be raised approximately 5 inches in order for isolation bearings to be installed to separate the superstructure from the substructure during seismic events. In preparation, the bridge piers are being widened with reinforced concrete to accommodate the new bearings. Work continues with reinforcing steel and concrete placement at these main bridge piers.

Along the reinforced concrete slab approaches, the bent caps are being extended and tied to new 48-inch diameter steel piles that have been installed to strengthen the bridge. Bent cap extensions along the east and west trestle approach are now complete.

The concrete coring operation to widen the pier caps is complete at all of the 14 locations. Concrete has been placed at 14 of 16 piers. The installation of jacking frames is complete at piers 17 through 22. Welding is ongoing at piers 27, 28, 29 and 30.

Work at the pumping plant is substantially complete. Fender rehabilitation work is ongoing at piers 23 and 24. Pier footing overlay concrete has been placed at piers 17 through 22 and piers 25 through 30.

Retrofitting of the existing damaged piles at the Ravenswood pier is ongoing in order to mobilize a crane to begin the pier removal operation. Demolition and reconstruction of the concrete barrier at the approach to the seismic joints at pier 16 is ongoing.

The Dumbarton bridge is scheduled to be closed for construction over the 2012 Memorial Day weekend.

Ravenswood Staging for Footing Overlay Work

Pier 31 Platform 2

Piers 26 to 31

Pier 28 Jacking Frame

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Other Completed Projects

In the 1990s, the State Legislature identified seven of the nine state-owned toll bridges for seismic retrofit. In addition to the San Francisco-Oakland Bay Bridge, these included the Benicia-Martinez, Carquinez, Richmond-San Rafael and San Mateo-Hayward bridges in the Bay Area, and the Vincent Thomas and Coronado bridges in Southern California. Other than the East Span of the Bay Bridge, the retrofits of all of the bridges have been completed as planned.

High-Rise Section of San Mateo-Hayward Bridge

San Mateo-Hayward Bridge Seismic Retrofit Project
Project Status: Completed 2000

The San Mateo-Hayward Bridge seismic retrofit project focused on strengthening the high-rise portion of the span. The foundations of the bridge were significantly upgraded with additional piles.

1958 Carquinez Bridge (foreground) with the 1927 Span (middle) under Demolition and the New Alfred Zampa Memorial Bridge (background)

1958 Carquinez Bridge Seismic Retrofit Project
Project Status: Completed 2002

The eastbound 1958 Carquinez Bridge was retrofitted in 2002 with additional reinforcement of the cantilever thru-truss structure.

1962 Benicia-Martinez Bridge Seismic Retrofit Project
Project Status: Completed 2003

The southbound 1962 Benicia-Martinez Bridge was retrofitted to “Lifeline” status with the strengthening of the foundations and columns and the addition of seismic bearings that allow the bridge to move during a major seismic event. The Lifeline status means the bridge is designed to sustain minor to moderate damage after a seismic event and to reopen quickly to emergency response traffic.

1962 Benicia-Martinez Bridge (right)

Richmond-San Rafael Bridge Seismic Retrofit Project
Project Status: Completed 2005

The Richmond-San Rafael Bridge was retrofitted to a "No Collapse" classification to avoid catastrophic failure during a major seismic event. The foundations, columns, and truss of the bridge were strengthened, and the entire low-rise approach viaduct from Marin County was replaced.

Richmond-San Rafael Bridge

Los Angeles-Vincent Thomas Bridge Seismic Retrofit Project
Project Status: Completed 2000

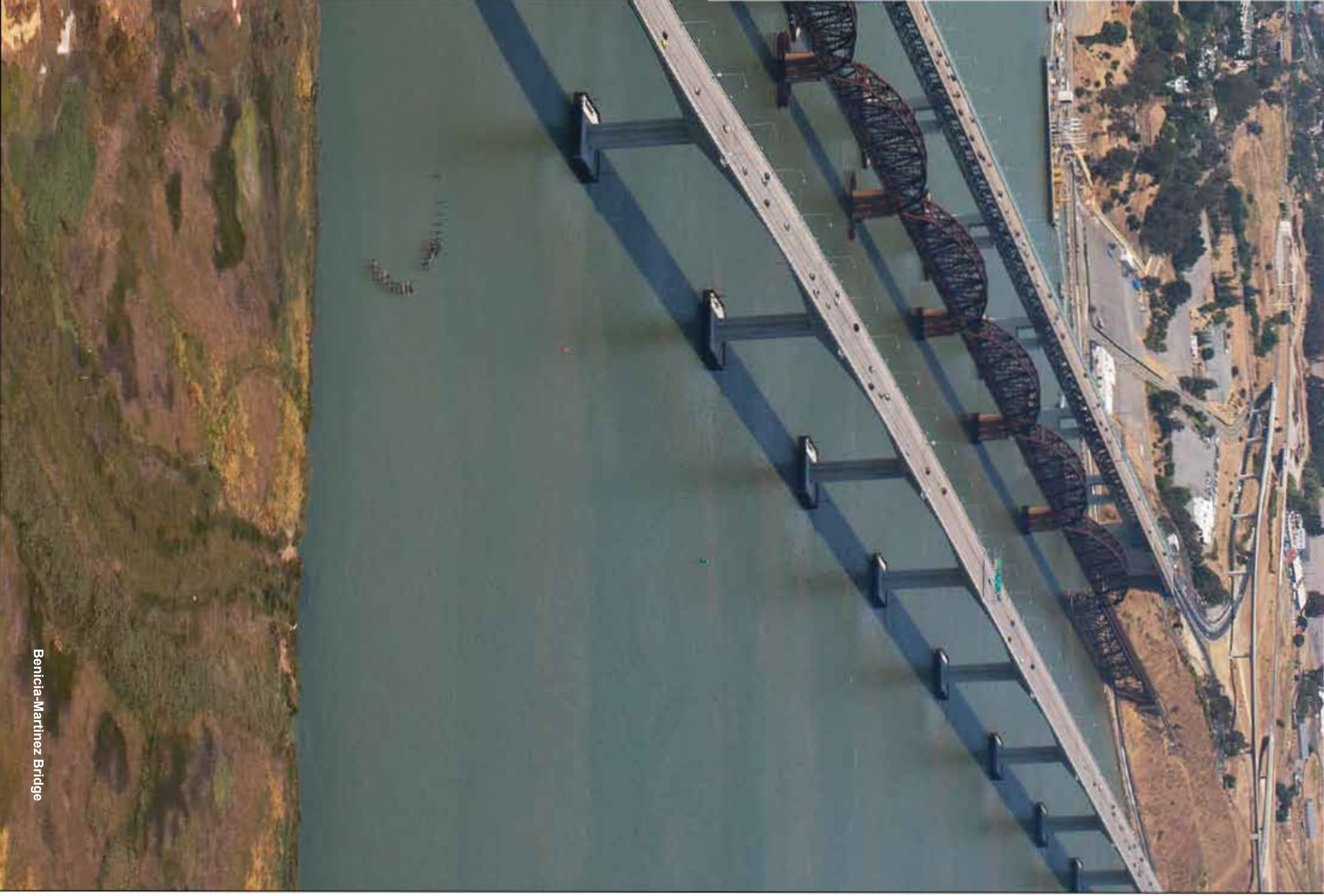
The Vincent Thomas Bridge is a 1,500-foot long suspension bridge crossing the Los Angeles Harbor in Los Angeles that links San Pedro with Terminal Island. The bridge was one of two state-owned toll bridges in Southern California (the other being the San Diego-Coronado Bridge). Opened in 1963, the bridge was seismically retrofitted as part of the TBSRP in 2000.

Los Angeles-Vincent Thomas Bridge

San Diego-Coronado Bridge Seismic Retrofit Project
Project Status: Completed 2002

The San Diego-Coronado Bridge crosses over San Diego Bay and links the cities of San Diego and Coronado. Opened in 1969, the 2.1-mile long bridge was seismically retrofitted as part of the TBSRP in 2002.

San Diego-Coronado Bridge



Benicia-Martinez Bridge

REGIONAL MEASURE 1 TOLL BRIDGE PROGRAM

REGIONAL MEASURE 1 PROGRAM

Completed Projects

In November 1988, Bay Area voters approved Regional Measure 1 (RM 1), which authorized a standard auto toll of $1 for all seven state-owned Bay Area toll bridges. The additional revenues generated by the toll increase were identified for use for certain highway and bridge improvements, public transit rail extensions, and other projects that reduce congestion in the bridge corridors.

The toll bridge projects identified by RM 1 are complete and are as follows:

Richmond Parkway Construction Project
Project Status: Completed 2001

The final connections to the Richmond Parkway from Interstate 580 near the Richmond-San Rafael Bridge were completed in May 2001.

San Mateo-Hayward Bridge Widening Project
Project Status: Completed 2003

This project expanded the low-rise concrete trestle section of the San Mateo-Hayward Bridge to allow for three lanes in each direction to match the existing configuration of the high-rise steel section of the bridge.

Widening of the San Mateo-Hayward Bridge Trestle on Left

New Alfred Zampa Memorial (Carquinez) Bridge Project
Project Status: Completed 2003

The new western span of the Carquinez Bridge, which replaced the original 1927 span, is a twin-towered suspension bridge with three mixed-flow lanes, a new carpool lane, shoulders and a bicycle/pedestrian pathway.

New Alfred Zampa Memorial (Carquinez) Bridge Soon after Opening to Traffic, with Crockett Interchange Still under Construction

Bayfront Expressway (State Route 84) Widening Project
Project Status: Completed 2004

This project expanded and improved the roadway from the Dumbarton Bridge touchdown to the US 101/ Marsh Road interchange by adding additional lanes and turn pockets and improving bicycle/pedestrian access in the area.

Richmond-San Rafael Bridge Rehabilitation Projects
Project Status: Completed 2006

Two major rehabilitation projects for the Richmond-San Rafael Bridge were funded and completed:
(1) replacement of the western concrete approach trestle and ship-collision protection fender system; and (2) rehabilitation of deck joints and resurfacing of the bridge deck.

In 2005, along with the seismic retrofit of the bridge, the trestle and fender replacement work was completed as part of the same project. Under a separate contract in 2006, the bridge was resurfaced with a polyester concrete overlay along with the repair of numerous deck joints.

New Richmond-San Rafael Bridge West Approach Trestle under Construction

Benicia-Martinez Bridge Project
Project Status: Completed 2009

A two-year project to rehabilitate and reconfigure the original Benicia-Martinez Bridge began shortly after the opening of the new Congressman George Miller Bridge. The existing 1.2-mile roadway surface on the steel deck truss bridge was modified to carry four lanes of southbound traffic (one more than before) - with shoulders on both sides - plus a bicycle/pedestrian path on the west side of the span that connects to Park Road in Benicia and to Marina Vista Boulevard in Martinez. Reconstruction of the east side of the bridge and approaches was completed in August 2008. Reconstruction of the west side of the bridge and its approaches and construction of the bicycle/pedestrian pathway were completed in August 2009.

Benicia-Martinez Bridge

Interstate 880/State Route 92
Project Status: Completed 2011

This corridor was consistently one of the Bay Area's most congested during the evening commute. This was due in part to the lane merging and weaving that was required by the then-existing cloverleaf interchange. The new interchange features direct freeway-to-freeway connector ramps that now increase traffic capacity and improve overall safety and traffic operations in the area. With the new direct-connector ramps, drivers coming off of the San Mateo-Hayward Bridge can access Interstate 880 without having to compete with traffic headed onto east Route 92 from south Interstate 880 (see progress photos in appendices). A Caltrans landscaping project will be undertaken in 2012.

Aerial View of Construction Progress

Compacting the Parallel Wire Strands (PWS)

APPENDICES

Appendix A-1: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through April 31, 2012 ($ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (04/2012)	Cost to Date (03/2012)	Cost Forecast (04/2012)	At-Completion Variance
a	c	d	e = c + d	f	g	h = g - e
SFOBB East Span Replacement Project						
Capital Outlay Support	959.3	261.5	1,220.8	1,045.3	1,264.1	43.3
Capital Outlay Construction	4,492.2	588.0	5,080.2	4,116.4	5,145.0	64.8
Other Budgeted Capital	35.1	(3.3)	31.8	0.7	7.7	(24.1)
Total	5,486.6	846.2	6,332.8	5,162.4	6,416.8	84.0
SFOBB West Approach Replacement						
Capital Outlay Support	120.0	(1.0)	119.0	118.7	119.0	-
Capital Outlay Construction	309.0	41.7	350.7	331.0	338.1	(12.6)
Total	429.0	40.7	469.7	449.7	457.1	(12.6)
SFOBB West Span Retrofit						-
Capital Outlay Support	75.0	(0.2)	74.8	74.9	74.8	-
Capital Outlay Construction	232.9	(5.5)	227.4	227.4	227.4	-
Total	307.9	(5.7)	302.2	302.3	302.2	-
Richmond-San Rafael Bridge Retrofit						
Capital Outlay Support	134.0	(7.0)	127.0	126.8	127.0	-
Capital Outlay Construction	780.0	(90.5)	689.5	667.5	689.5	-
Total	914.0	(97.5)	816.5	794.3	816.5	-
Benicia-Martinez Bridge Retrofit						-
Capital Outlay Support	38.1	-	38.1	38.1	38.1	-
Capital Outlay Construction	139.7	-	139.7	139.7	139.7	-
Total	177.8	-	177.8	177.8	177.8	-
Carquinez Bridge Retrofit						
Capital Outlay Support	28.7	0.1	28.8	28.8	28.8	-
Capital Outlay Construction	85.5	(0.1)	85.4	85.4	85.4	-
Total	114.2	-	114.2	114.2	114.2	-
San Mateo-Hayward Retrofit						-
Capital Outlay Support	28.1	-	28.1	28.1	28.1	-
Capital Outlay Construction	135.4	(0.1)	135.3	135.3	135.3	-
Total	163.5	(0.1)	163.4	163.4	163.4	-
Vincent Thomas Bridge Retrofit (Los Angeles)						
Capital Outlay Support	16.4	-	16.4	16.4	16.4	-
Capital Outlay Construction	42.1	(0.1)	42.0	42.0	42.0	-
Total	58.5	(0.1)	58.4	58.4	58.4	-
San Diego-Coronado Bridge Retrofit						
Capital Outlay Support	33.5	(0.3)	33.2	33.2	33.2	-
Capital Outlay Construction	70.0	(0.6)	69.4	69.4	69.4	-
Total	103.5	(0.9)	102.6	102.6	102.6	-

Appendix A-1: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through April 31, 2012 ($ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (04/2012)	Cost to Date (03/2012)	Cost Forecast (04/2012)	At-Completion Variance
a	c	d	e = c + d	f	g	h = g - e
Antioch Bridge						
Capital Outlay Support	-	31.0	31.0	15.9	31.0	-
Capital Outlay Support by BATA				6.2		
Capital Outlay Construction	-	51.0	51.0	42.9	50.8	(0.2)
Total	-	82.0	82.0	65.0	81.8	(0.2)
Dumbarton Bridge						
Capital Outlay Support	-	56.0	56.0	26.9	56.0	-
Capital Outlay Support by BATA				6.0		
Capital Outlay Construction	-	92.7	92.7	37.6	83.5	(9.2)
Total	-	148.7	148.7	70.5	139.5	(9.2)
Subtotal Capital Outlay Support	1,433.1	340.1	1,773.2	1,565.3	1,816.5	43.3
Subtotal Capital Outlay	6,286.8	676.5	6,963.3	5,894.6	7,006.1	42.8
Subtotal Other Budgeted Capital	35.1	(3.3)	31.8	0.7	7.7	(24.1)
Miscellaneous Program Costs	30.0	-	30.0	25.5	30.0	-
Subtotal Toll Bridge Seismic Retrofit Program	7,785.0	1,013.3	8,798.3	7,486.1	8,860.3	62.0
Net Programmatic Risks*	-	-	-	-	92.0	92.0
Program Contingency	900.0	(616.3)	283.7	-	129.7	(154.0)
Total Toll Bridge Seismic Retrofit Program [1]	8,685.0	397.0	9,082.0	7,486.1	9,082.0	-

[1] Figures may not sum up to totals due to rounding effects.

Appendix A-2: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through April 31, 2012 ($ Millions)

Bridge	AB 144 Baseline Budget	TBPOC Current Approved Budget	Expenditures to date and Encumbrances as of April 2012 see Note (1)	Estimated costs not yet spent or Encumbered as of April 2012	Total Forecast as of April 2012
a	b	c	d	e	f = d + e
Other Completed Projects					
Capital Outlay Support	144.9	144.6	144.6	-	144.6
Capital Outlay	472.6	471.9	472.6	(0.8)	471.8
Total	617.5	616.5	617.2	(0.8)	616.4
Richmond-San Rafael					
Capital Outlay Support	134.0	127.0	126.7	0.3	127.0
Capital Outlay	698.0	689.5	667.8	21.7	689.5
Project Reserves	82.0	-	-	-	-
Total	914.0	816.5	794.5	22.0	816.5
West Span Retrofit					
Capital Outlay Support	75.0	74.8	74.9	(0.1)	74.8
Capital Outlay	232.9	227.4	232.8	(5.4)	227.4
Total	307.9	302.2	307.7	(5.5)	302.2
West Approach					
Capital Outlay Support	120.0	119.0	118.8	0.2	119.0
Capital Outlay	309.0	350.7	346.0	(7.9)	338.1
Total	429.0	469.7	464.8	(7.7)	457.1
SFOBB East Span - Skyway					
Capital Outlay Support	197.0	181.2	181.2	-	181.2
Capital Outlay	1,293.0	1,245.2	1,237.2	8.0	1,245.2
Total	1,490.0	1,426.4	1,418.4	8.0	1,426.4
SFOBB East Span - SAS - Superstructure					
Capital Outlay Support	214.6	419.0	391.8	72.5	464.3
Capital Outlay	1,753.7	2,046.8	1,659.9	398.1	2,058.0
Total	1,968.3	2,465.8	2,051.7	470.6	2,522.3
SFOBB East Span - SAS - Foundations					
Capital Outlay Support	62.5	37.6	37.6	-	37.6
Capital Outlay	339.9	305.1	309.3	(4.3)	305.0
Total	402.4	342.7	346.9	(4.3)	342.6
Small YBI Projects					
Capital Outlay Support	10.6	10.6	10.2	0.4	10.6
Capital Outlay	15.6	15.6	15.5	0.2	15.7
Total	26.2	26.2	25.7	0.6	26.3
YBI Detour					
Capital Outlay Support	29.5	90.7	88.8	(1.1)	87.7
Capital Outlay	131.9	492.8	492.9	(10.1)	482.8
Total	161.4	583.5	581.7	(11.2)	570.5
YBI- Transition Structures					
Capital Outlay Support	78.7	106.4	71.7	39.7	111.4
Capital Outlay	299.4	262.0	132.8	193.9	326.7
Total	378.1	368.4	204.5	233.6	438.1

Appendix A-2: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through April 31, 2012 ($ Millions) Cont.

Contract	AB 144 Baseline Budget	TBPOC Current Approved Budget	Expenditures to date and Encumbrances as of April 2012 see Note (1)	Estimated Costs not yet spent or Encumbered as of April 2012	Total Forecast as of April 2012
a	b	c	d	e	f = d + e
Oakland Touchdown					
Capital Outlay Support	74.4	108.9	95.4	28.4	123.8
Capital Outlay	283.8	334.6	250.6	76.7	327.3
Total	358.2	443.5	346.0	105.1	451.1
East Span Other Small Projects					
Capital Outlay Support	212.3	206.5	197.9	8.7	206.6
Capital Outlay	170.8	170.7	118.4	36.2	154.6
Total	383.1	377.2	316.3	44.9	361.2
Existing Bridge Demolition					
Capital Outlay Support	79.7	59.9	2.0	38.9	40.9
Capital Outlay	239.2	239.1	-	237.3	237.3
Total	318.9	299.0	2.0	276.2	278.2
Antioch Bridge					
Capital Outlay Support	-	31.0	16.2	8.6	24.8
Capital Outlay Support by BATA			6.2	-	6.2
Capital Outlay	-	51.0	47.4	3.4	50.8
Total	-	82.0	69.8	12.0	81.8
Dumbarton Bridge					
Capital Outlay Support	-	56.0	27.2	22.8	50.0
Capital Outlay Support by BATA			6.0	-	6.0
Capital Outlay	-	92.7	55.7	27.8	83.5
Total	-	148.7	88.9	50.6	139.5
Miscellaneous Program Costs	30.0	30.0	25.5	4.5	30.0
Total Capital Outlay Support	1,463.2	1,803.2	1,622.7	223.8	1,846.5
Total Capital Outlay	6,321.8	6,995.1	6,038.9	974.9	7,013.8
Program Total [1]	7,785.0	8,798.3	7,661.6	1,198.7	8,860.3

(1). Funds allocated to project or contract for Capital Outlay and Support needs includes Capital Outlay Support total allocation for FY 06/07.
(2). BSA provided a distribution of program contingency in December 2004 based in Bechtel Infrastructure Corporation input. This Column is subject to revision upon completion of Department's risk assessment update.
(3) Total Capital Outlay Support includes program indirect costs.

[1] Figures may not sum up to totals due to rounding effects.

Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through April 31, 2012 ($ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (04/2012)	Cost to Date (03/2012)	Cost Forecast (04/2012)	At-Completion Variance
a	c	d	e = c + d	f	g	h = g - e
San Francisco-Oakland Bay Bridge East Span Replacement Project						
East Span - SAS Superstructure						
Capital Outlay Support	214.6	204.4	419.0	370.5	464.3	45.3
Capital Outlay Construction	1,753.7	293.1	2,046.8	1,657.9	2,058.0	11.2
Total	1,968.3	497.5	2,465.8	2,028.4	2,522.3	56.5
SAS W2 Foundations						
Capital Outlay Support	10.0	(0.8)	9.2	9.2	9.2	-
Capital Outlay Construction	26.4	0.1	26.5	26.5	26.4	(0.1)
Total	36.4	(0.7)	35.7	35.7	35.6	(0.1)
YBI South/South Detour						
Capital Outlay Support	29.4	61.3	90.7	87.6	87.7	(3.0)
Capital Outlay Construction	131.9	360.9	492.8	466.1	482.8	(10.0)
Total	161.3	422.2	583.5	553.7	570.5	(13.0)
East Span - Skyway						
Capital Outlay Support	197.0	(15.8)	181.2	181.2	181.2	-
Capital Outlay Construction	1,293.0	(47.8)	1,245.2	1,237.1	1,245.2	-
Total	1,490.0	(63.6)	1,426.4	1,418.3	1,426.4	-
East Span - SAS E2/T1 Foundations						-
Capital Outlay Support	52.5	(24.1)	28.4	28.4	28.4	-
Capital Outlay Construction	313.5	(34.9)	278.6	274.8	278.6	-
Total	366.0	(59.0)	307.0	303.2	307.0	-
YBI Transition Structures (see notes below)						
Capital Outlay Support	78.7	27.7	106.4	67.4	111.4	5.0
Capital Outlay Construction	299.3	(37.3)	262.0	113.4	326.7	64.7
Total	378.0	(9.6)	368.4	180.8	438.1	69.7
* YBI- Transition Structures						
Capital Outlay Support			16.4	16.4	16.4	-
Capital Outlay Construction			-	-	-	-
Total			16.4	16.4	16.4	-
* YBI- Transition Structures Contract No. 1						
Capital Outlay Support			57.0	39.5	59.8	2.8
Capital Outlay Construction			199.7	113.4	243.6	43.9
Total			256.7	152.9	303.4	46.7
* YBI- Transition Structures Contract No. 2						
Capital Outlay Support			32.0	11.5	34.2	2.2
Capital Outlay Construction			59.0	-	79.8	20.8
Total			91.0	11.5	114.0	23.0
* YBI- Transition Structures Contract No. 3 Landscape						
Capital Outlay Support			1.0	-	1.0	-
Capital Outlay Construction			3.3	-	3.3	-
Total			4.3	-	4.3	-

Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through April 31, 2012 ($ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (04/2012)	Cost to Date (03/2012)	Cost Forecast (04/2012)	At-Completion Variance
a	c	d	e = c + d	f	g	h = g - e
Oakland Touchdown (see notes below)						
Capital Outlay Support	74.4	34.5	108.9	91.1	123.8	14.9
Capital Outlay Construction	283.8	50.8	334.6	208.7	327.3	(7.3)
Total	358.2	85.3	443.5	299.8	451.1	7.6
* OTD Prior-to-Split Costs						
Capital Outlay Support			21.7	20.0	21.7	-
Capital Outlay Construction			-	-	-	4.4
Total			21.7	20.0	21.7	4.4
* OTD Submarine Cable(1)						
Capital Outlay Support			0.9	0.9	0.9	-
Capital Outlay Construction			9.6	5.7	9.6	-
Total			10.5	6.6	10.5	-
* OTD No. 1 (Westbound)						
Capital Outlay Support			47.3	51.1	51.3	4.0
Capital Outlay Construction			212.0	203.0	203.3	(8.7)
Total			259.3	254.1	254.6	(4.7)
* OTD No. 2 (Eastbound)						
Capital Outlay Support			22.5	13.2	35.3	12.8
Capital Outlay Construction			62.0	-	56.3	(5.7)
Total			84.5	13.2	91.6	7.1
* OTD Touchdown 2 Detour(2)						
Capital Outlay Support			15.0	5.1	13.1	(1.9)
Capital Outlay Construction			51.0	-	53.7	2.7
Total			66.0	5.1	66.8	0.8
* OTD Electrical Systems						
Capital Outlay Support			1.5	0.8	1.5	-
Capital Outlay Construction			-	-	4.4	4.4
Total			1.5	0.8	5.9	4.4
Existing Bridge Demolition						
Capital Outlay Support	79.7	(19.8)	59.9	1.8	40.9	(19.0)
Capital Outlay Construction	239.2	(0.1)	239.1	-	237.3	(1.8)
Total	318.9	(19.9)	299.0	1.8	278.2	(20.8)
* Cantilever Section						
Capital Outlay Support			-	-	15.0	
Capital Outlay Construction			-	-	60.4	
Total			-	-	75.4	
* 504/288 Sections						
Capital Outlay Support			-	1.8	25.9	
Capital Outlay Construction			-	-	176.9	
Total			-	1.8	202.8	
YBI/SAS Archeology						
Capital Outlay Support	1.1	-	1.1	1.1	1.1	-
Capital Outlay Construction	1.1	-	1.1	1.1	1.1	-
Total	2.2	-	2.2	2.2	2.2	-

Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through April 31, 2012 ($ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (04/2012)	Cost to Date (03/2012)	Cost Forecast (04/2012)	At-Completion Variance
a	c	d	e = c + d	f	g	h = g - e
YBI - USCG Road Relocation						
Capital Outlay Support	3.0	-	3.0	2.7	3.0	-
Capital Outlay Construction	3.0	-	3.0	2.8	3.0	-
Total	6.0	-	6.0	5.5	6.0	-
YBI - Substation and Viaduct						
Capital Outlay Support	6.5	-	6.5	6.4	6.5	-
Capital Outlay Construction	11.6	-	11.6	11.3	11.6	-
Total	18.1	-	18.1	17.7	18.1	-
Oakland Geofill						-
Capital Outlay Support	2.5	-	2.5	2.5	2.5	-
Capital Outlay Construction	8.2	-	8.2	8.2	8.2	-
Total	10.7	-	10.7	10.7	10.7	-
Pile Installation Demonstration Project						
Capital Outlay Support	1.8	-	1.8	1.8	1.8	-
Capital Outlay Construction	9.3	(0.1)	9.2	9.2	9.3	-
Total	11.1	(0.1)	11.0	11.0	11.1	-
Stormwater Treatment Measures						
Capital Outlay Support	6.0	2.2	8.2	8.2	8.2	-
Capital Outlay Construction	15.0	3.3	18.3	16.8	18.3	-
Total	21.0	5.5	26.5	25.0	26.5	-
Right-of-Way and Environmental Mitigation						
Capital Outlay Support	-	-	-	-	-	-
Capital Outlay & Right-of-Way	72.4	-	72.4	51.7	80.4	8.0
Total	72.4	-	72.4	51.7	80.4	8.0
Sunk Cost - Existing East Span Retrofit						
Capital Outlay Support	39.5	-	39.5	39.5	39.5	-
Capital Outlay Construction	30.8	-	30.8	30.8	30.8	-
Total	70.3	-	70.3	70.3	70.3	-
Other Capital Outlay Support						
Environmental Phase	97.7	-	97.7	97.8	97.7	-
Pre-Split Project Expenditures	44.9	-	44.9	44.9	44.9	-
Non-Project Specific Costs	20.0	(8.0)	12.0	3.2	12.0	-
Total	162.6	(8.0)	154.6	145.9	154.6	-
Subtotal Capital Outlay Support	959.3	261.5	1,220.8	1,045.3	1,264.1	43.3
Subtotal Capital Outlay Construction	4,492.2	588.0	5,080.2	4,116.4	5,145.0	64.8
Other Budgeted Capital	35.1	(3.3)	31.8	0.7	7.7	(24.1)
						-
Total SFOBB East Span Replacement Project	5,486.6	846.2	6,332.8	5,162.4	6,416.8	84.0

[1] Figures may not sum up to totals due to rounding effects.

Appendix C: Regional Measure 1 Program Cost Detail ($ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (04/2012)	Cost to Date (04/2012)	Cost Forecast (04/2012)	At-Completion Variance
a	c	d	e = c + d	f	g	h = g - e
New Benicia-Martinez Bridge Project						
New Bridge						
Capital Outlay Support						
BATA Funding	84.9	7.2	92.1	91.9	92.1	-
Non-BATA Funding	-	0.1	0.1	0.1	0.1	-
Subtotal	84.9	7.3	92.2	92.0	92.2	-
Capital Outlay Construction			-			-
BATA Funding	661.9	94.6	756.5	753.7	756.5	-
Non-BATA Funding	10.1	-	10.1	10.1	10.1	-
Subtotal	672.0	94.6	766.6	763.8	766.6	-
Total	756.9	101.9	858.8	855.8	858.8	-
I-680/I-780 Interchange Reconstruction						
Capital Outlay Support						
BATA Funding	24.9	5.2	30.1	30.1	30.1	-
Non-BATA Funding	1.4	5.2	6.6	6.2	6.6	-
Subtotal	26.3	10.4	36.7	36.3	36.7	-
Capital Outlay Construction						
BATA Funding	54.7	26.9	81.6	77.1	81.6	-
Non-BATA Funding	21.6	-	21.6	21.7	21.7	0.1
Subtotal	76.3	26.9	103.2	98.8	103.3	0.1
Total	102.6	37.3	139.9	135.1	140.0	0.1
I-680/Marina Vista Interchange Reconstruction						
Capital Outlay Support	18.3	1.9	20.2	20.2	20.2	-
Capital Outlay Construction	51.5	4.9	56.4	56.1	56.4	-
Total	69.8	6.8	76.6	76.3	76.6	-
New Toll Plaza and Administration Building						
Capital Outlay Support	11.9	3.8	15.7	15.7	15.7	-
Capital Outlay Construction	24.3	2.0	26.3	25.1	26.3	-
Total	36.2	5.8	42.0	40.8	42.0	-
Existing Bridge & Interchange Modifications						
Capital Outlay Support						
BATA Funding	4.3	13.7	18.0	18.0	18.0	-
Non-BATA Funding	-	0.9	0.9	0.8	0.9	-
Subtotal	4.3	14.6	18.9	18.8	18.9	-
Capital Outlay Construction						
BATA Funding	17.2	32.8	50.0	37.2	50.0	-
Non-BATA Funding	-	9.5	9.5	-	9.5	-
Subtotal	17.2	42.3	59.5	37.2	59.5	-
Total	21.5	56.9	78.4	56.0	78.4	-
Other Contracts						
Capital Outlay Support	11.4	(0.9)	10.5	9.7	10.5	-
Capital Outlay Construction	20.3	3.3	23.6	18.6	23.6	-
Capital Outlay Right-of-Way	20.4	(0.1)	20.3	17.0	20.3	-
Total	52.1	2.3	54.4	45.3	54.4	-

Appendix C: Regional Measure 1 Program Cost Detail ($ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (04/2012)	Cost to Date (03/2012)	Cost Forecast (04/2012)	At-Completion Variance
a	c	d	e = c + d	f	g	h = g - e
New Benicia-Martinez Bridge Project continued...						
Subtotal BATA Capital Outlay Support	155.7	30.9	186.6	185.6	186.6	-
Subtotal BATA Capital Outlay Construction	829.9	164.5	994.4	967.8	994.4	-
Subtotal Capital Outlay Right-of-Way	20.4	(0.1)	20.3	17.0	20.3	-
Subtotal Non-BATA Capital Outlay Support	1.4	6.2	7.6	7.1	7.6	-
Subtotal Non-BATA Capital Outlay Construction	31.7	9.5	41.2	31.8	41.3	0.1
Project Reserves	20.8	1.6	22.4	-	22.3	(0.1)
Total New Benicia-Martinez Bridge Project	1,059.9	212.6	1,272.5	1,209.3	1,272.5	-
Notes:	Includes EAs 00601_,00603_,00605_,00606_,00608_,00609_,0060A_,0060C_,0060E_,0060F_,0060G_,0060H_, and all Project Right-of-Way					
Carquinez Bridge Replacement Project						
New Bridge						
Capital Outlay Support	60.5	(0.3)	60.2	60.2	60.2	-
Capital Outlay Construction	253.3	2.7	256.0	255.9	256.0	-
Total	313.8	2.4	316.2	316.1	316.2	-
Crockett Interchange Reconstruction						
Capital Outlay Support	32.0	(0.1)	31.9	31.9	31.9	-
Capital Outlay Construction	73.9	(1.9)	72.0	71.9	72.0	-
Total	105.9	(2.0)	103.9	103.8	103.9	-
Existing 1927 Bridge Demolition						
Capital Outlay Support	16.1	(0.3)	15.8	15.8	15.8	-
Capital Outlay Construction	35.2	-	35.2	35.0	35.2	-
Total	51.3	(0.3)	51.0	50.8	51.0	-
Other Contracts						
Capital Outlay Support	15.8	0.9	16.7	16.5	16.7	-
Capital Outlay Construction	18.8	(1.2)	17.6	16.4	17.6	-
Capital Outlay Right-of-Way	10.5	(0.1)	10.4	10.0	10.4	-
Total	45.1	(0.4)	44.7	42.9	44.7	-
Subtotal BATA Capital Outlay Support	124.4	0.2	124.6	124.4	124.6	-
Subtotal BATA Capital Outlay Construction	381.2	(0.4)	380.8	379.2	380.8	-
Subtotal Capital Outlay Right-of-Way	10.5	(0.1)	10.4	10.0	10.4	-
Project Reserves	12.1	(9.7)	2.4	-	2.4	-
Total Carquinez Bridge Replacement Project [1]	528.2	(10.0)	518.2	513.6	518.2	-
Notes	Other Contracts include EAs 01301_,01302_,01303_,01304_,01305_,01306_,01307_,01308_,01309_,0130A_,0130C_,0130D_,0130F_,0130G_,0130H_,0130J_,00453_,00493_,04700_,00607_,2A270_,and 29920_ and all Project Right-of-Way					

[1] Figures may not sum up to totals due to rounding effects.

Appendix C: Regional Measure 1 Program Cost Detail ($ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (04/2012)	Cost to Date (04/2012)	Cost Forecast (04/2012)	At-Completion Variance
a	c	d	e = c + d	f	g	h = g - e
Richmond-San Rafael Bridge Trestle. Fender, and Deck Joint Rehabilitation						
Capital Outlay Support						
BATA Funding	2.2	(0.8)	1.4	1.4	1.4	-
Non-BATA Funding	8.6	1.8	10.4	10.4	10.4	-
Subtotal	10.8	1.0	11.8	11.8	11.8	-
Capital Outlay Construction						
BATA Funding	40.2	(6.8)	33.4	33.3	33.4	-
Non-BATA Funding	51.1	-	51.1	51.1	51.1	-
Subtotal	91.3	(6.8)	84.5	84.4	84.5	-
Project Reserves	-	0.8	0.8	-	0.8	-
Total	102.1	(5.0)	97.1	96.2	97.1	-
Richmond-San Rafael Bridge Deck Overlay Rehabilitation						
Capital Outlay Support						
BATA Funding	4.0	(0.7)	3.3	3.3	3.3	-
Non-BATA Funding	4.0	(4.0)	-	-	-	-
Subtotal	8.0	(4.7)	3.3	3.3	3.3	-
Capital Outlay Construction	16.9	(0.6)	16.3	16.3	16.3	-
Project Reserves	0.1	0.3	0.4	-	0.4	-
Total	25.0	(5.0)	20.0	19.6	20.0	-
Richmond Parkway Project (RM 1 Share Only)						
Capital Outlay Support	-	-	-	-	-	-
Capital Outlay Construction	5.9	-	5.9	4.3	5.9	-
Total	5.9	-	5.9	4.3	5.9	-
San Mateo-Hayward Bridge Widening						
Capital Outlay Support	34.6	(0.5)	34.1	34.1	34.1	-
Capital Outlay Construction	180.2	(6.1)	174.1	174.1	174.1	-
Capital Outlay Right-of-Way	1.5	(0.9)	0.6	0.6	0.6	-
Project Reserves	1.5	(0.5)	1.0	-	1.0	-
Total	217.8	(8.0)	209.8	208.8	209.8	-
I-880/SR-92 Interchange Reconstruction						
Capital Outlay Support	28.8	35.8	64.6	62.2	64.6	-
Capital Outlay Construction						
BATA Funding	85.2	68.4	153.6	150.2	153.6	-
Non-BATA Funding	9.6	-	9.6	-	9.6	-
Subtotal	94.8	68.4	163.2	150.2	163.2	-
Capital Outlay Right-of-Way	9.9	7.3	17.2	14.7	17.2	-
Project Reserves	0.3	(0.3)	-	-	-	-
Total	133.8	111.2	245.0	227.1	245.0	-
Bayfront Expressway Widening						
Capital Outlay Support	8.6	(0.2)	8.4	8.4	8.4	-
Capital Outlay Construction	26.5	(1.5)	25.0	24.9	25.0	-
Capital Outlay Right-of-Way	0.2	-	0.2	0.2	0.2	-
Project Reserves	0.8	(0.3)	0.5	-	0.5	-
Total	36.1	(2.0)	34.1	33.5	34.1	-

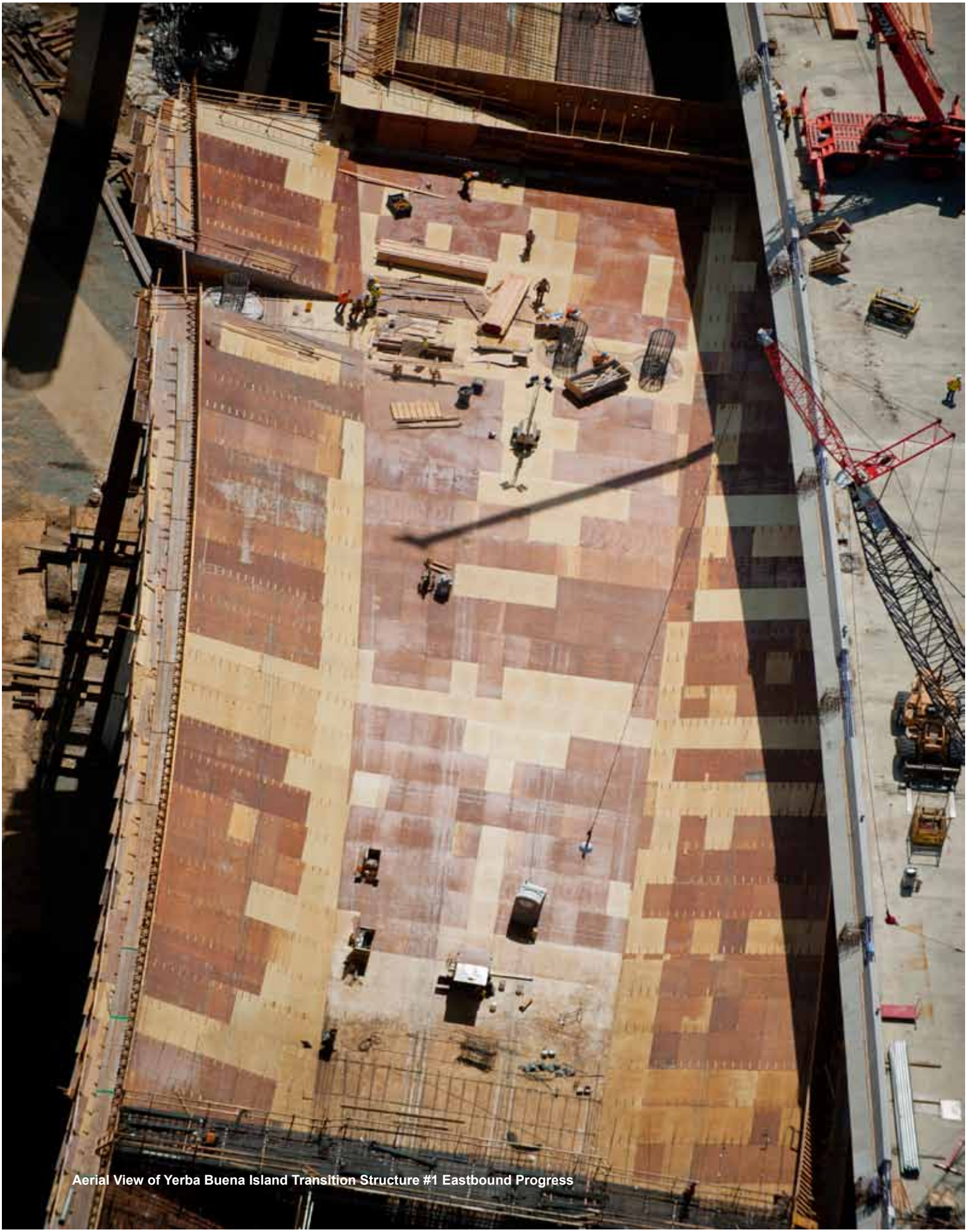
Appendix C: Regional Measure 1 Program Cost Detail ($ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (04/2012)	Cost to Date (04/2012)	Cost Forecast (04/2012)	At-Completion Variance
a	c	d	e = c + d	f	g	h = g - e
US 101/University Avenue Interchange Modification						
Capital Outlay Support	-	-	-	-	-	-
Capital Outlay Construction	3.8	-	3.8	3.7	3.8	-
Total	3.8	-	3.8	3.7	3.8	-
Subtotal BATA Capital Outlay Support	358.3	64.7	423.0	419.4	423.0	-
Subtotal BATA Capital Outlay Construction	1,569.8	217.5	1,787.3	1,753.8	1,787.3	-
Subtotal Capital Outlay Right-of-Way	42.5	6.2	48.7	42.5	48.7	-
Subtotal Non-BATA Capital Outlay Support	14.0	4.0	18.0	17.5	18.0	-
Subtotal Non-BATA Capital Outlay Construction	92.4	9.5	101.9	82.9	102.0	0.1
Project Reserves	35.6	(8.1)	27.5	-	27.4	(0.1)
Total RM1 Program	2,112.6	293.8	2,406.4	2,316.1	2,406.4	-

Notes:

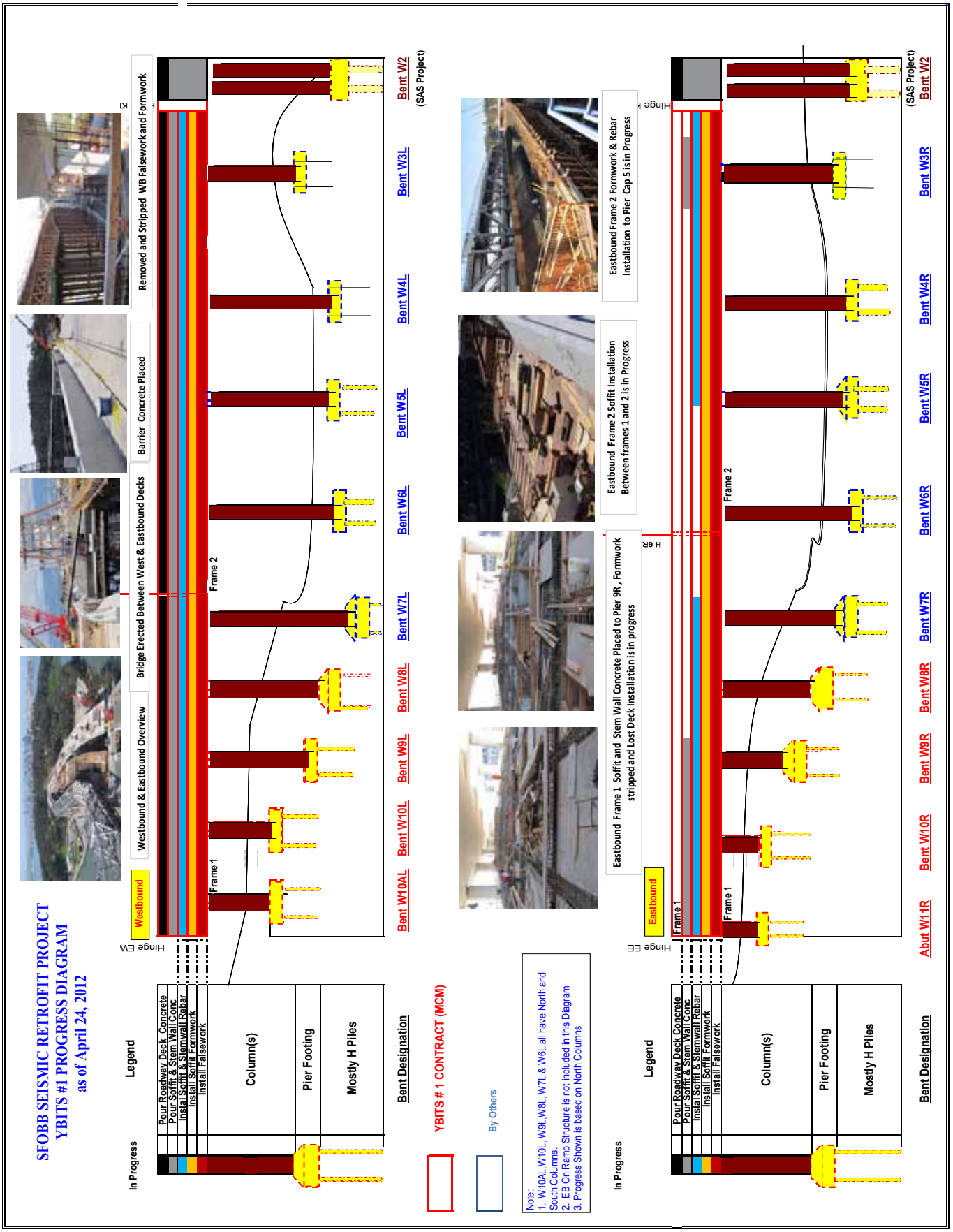
1 Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation Includes Non-TBSRP Expenses for EA 0438U_ and 04157_

2 San Mateo-Hayward Bridge Widening includes EAs 00305_,04501_,04503_,04504_,04504_,04505_,04506_,04507_,04508_,04509_,27740_,27790_,04860_

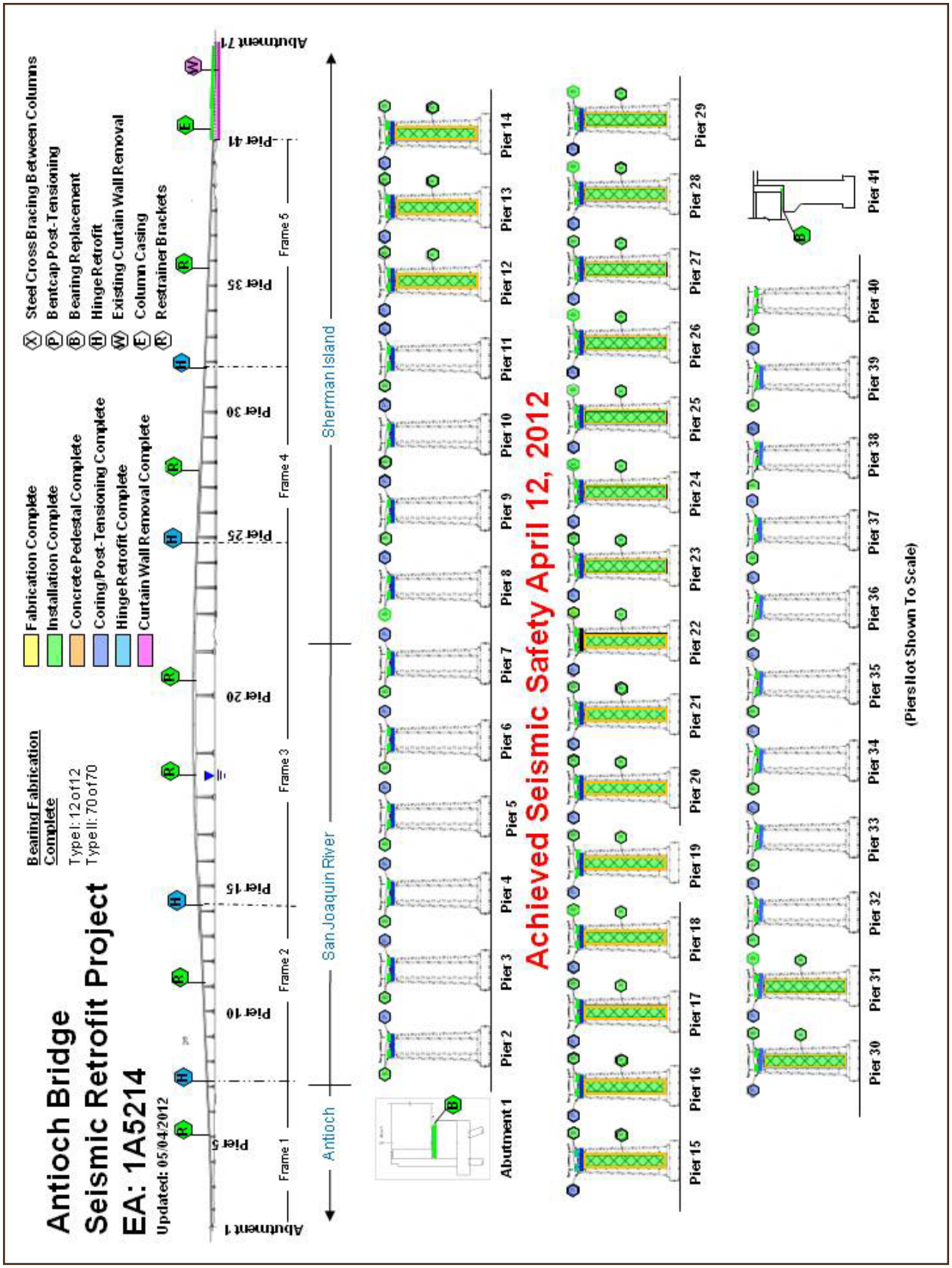


Aerial View of Yerba Buena Island Transition Structure #1 Eastbound Progress

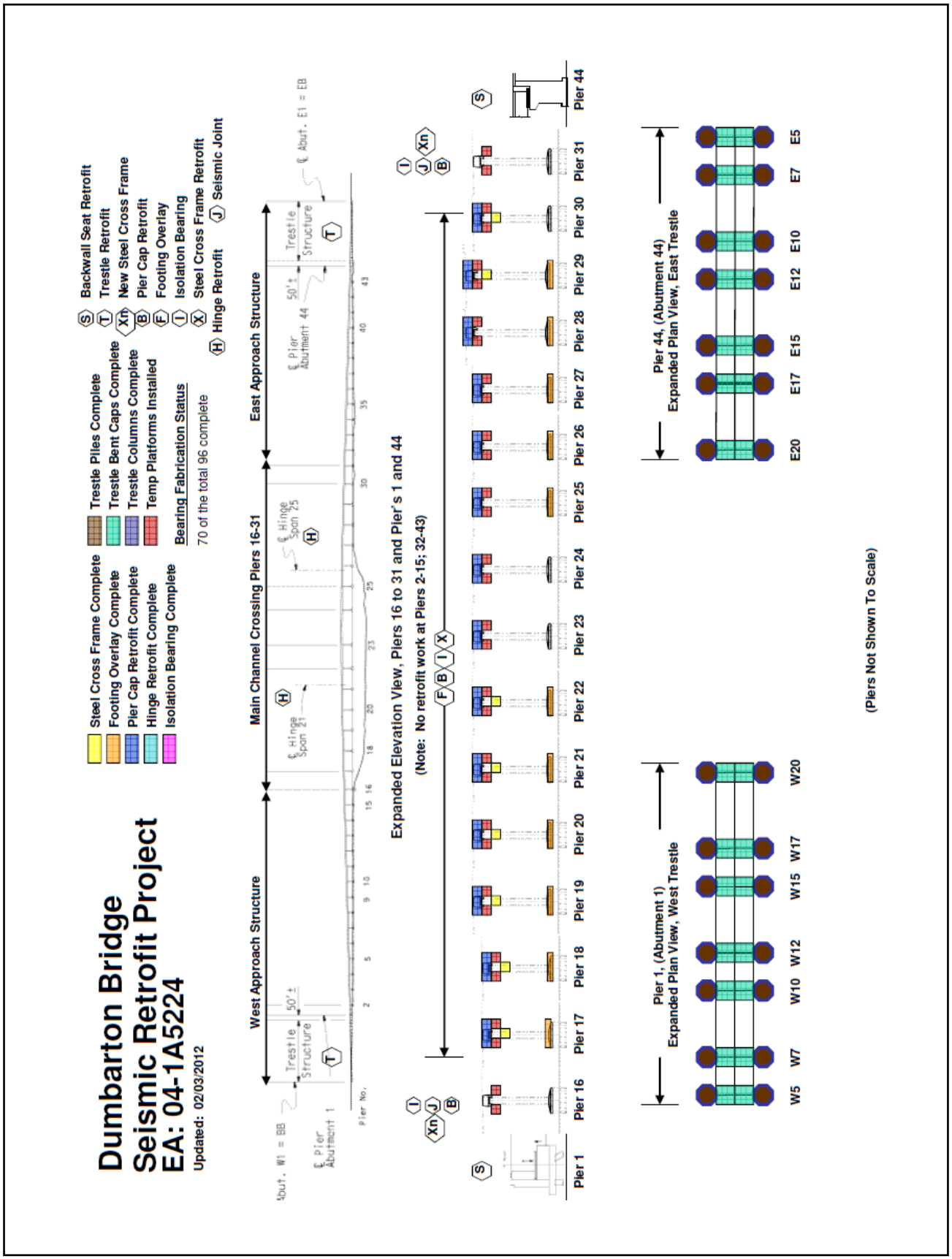
Appendix D: Progress Diagrams
Yerba Buena Island Transition Structures



Appendix D: Progress Diagrams (cont.)
Antioch Bridge



Appendix D: Progress Diagrams (cont.)
Dumbarton Bridge



Removing Compaction Equipment from West Deviation Saddle Area

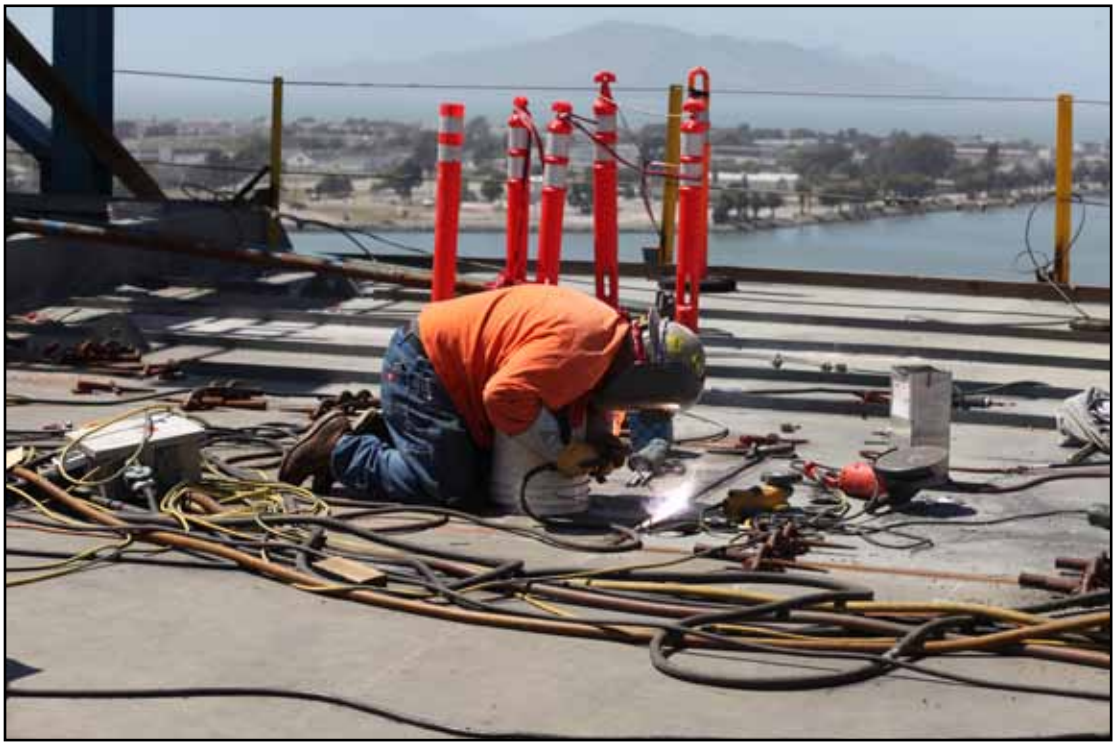
Project Photos

Installing Wooden Blocks att the Self-Anchored Suspension Bridge Tower Saddle

Appendix E: Project Progress Photographs

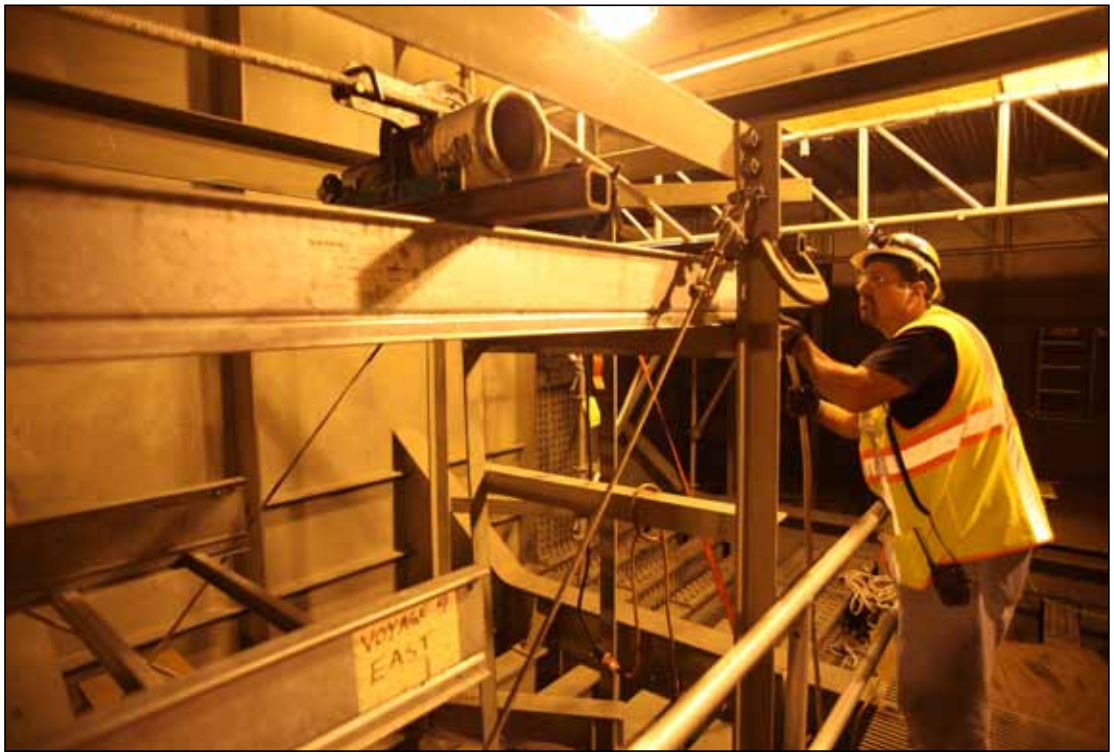
Self-Anchored Suspension Bridge Field Work

Verifying the Initial Length of the Cable Band Bolts on the West Loop



Welding Deck Plate over Parllel Wire Strand (PWS) Anchorage Area on Westbound Roadway Box

Compacting North Mainspan PWS Cable Near Completion at East Saddle



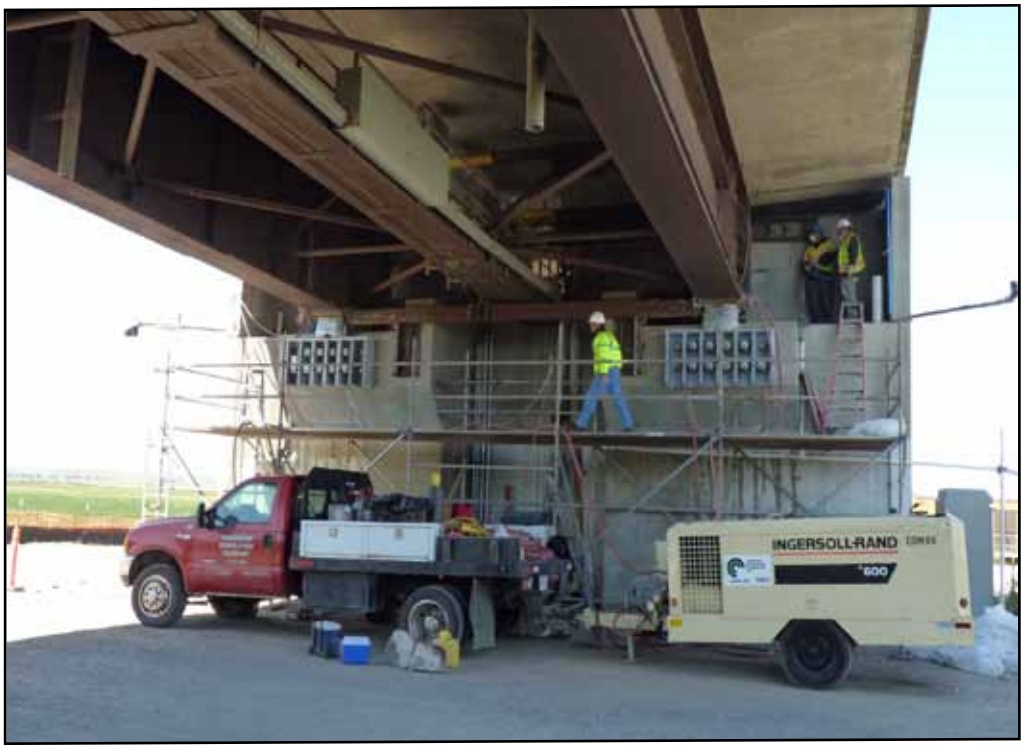
Pulling 600V Cable inside Eastbound Roadway Box

spension Bridge Roadway Box Being Placed

Dismantling South Main Span Compactor

Appendix E: Project Progress Photographs

Antioch Bridge



Antioch Bridge - Pier 41 Girders on Temporary Jacks prior to Installation of Isolation Bearings

Antioch Bridge - Welding of Jacking Stiffeners at Existing Girder Web

Appendix E: Project Progress Photographs

Dumbarton Bridge

Dumbarton Bridge - Ravenswood Pier Staging for Footing Overlay Work

Dumbarton Bridge - Pier 26 Footing Overlay - All Footing Overlay Completed Except Piers 23 & 24

Appendix E: Project Progress Photographs

Westbound Oakland Detour

Before Opening to Traffic

After Opening to Traffic

Westbound Oakland Detour Construction Progress

Appendix E: Project Progress Photographs

Yerba Buena Island Transition Structure #1 Westbound

YBITS #1 Soffit Formwork and Falsework Installation in Progress

Stripping Stem Wall Forms on YBITS#1 Frame 1 Eastbound

YBITS #1 Westbound Roadway Deck Nearing Completion

Glossary of Terms

AB 144/SB 66 BUDGET: The planned allocation of resources for the Toll Bridge Seismic Retrofit Program, or subordinate projects or contracts, as provided in Assembly Bill 144 and Senate Bill 66, signed into law by Governor Schwarzenegger on July 18, 2005 and September 29, 2005, respectively.

AB 144/SB 66 PROJECT COMPLETE BASELINE: The planned completion date for the Toll Bridge Seismic Retrofit Program or subordinate projects or contracts.

APPROVED CHANGES: For cost, changes to the AB 144/SB 66 Budget or BATA Budget as approved by the Bay Area Toll Authority Commission. For schedule, changes to the AB 144/SB 66 Project Complete Baseline approved by the Toll Bridge Program Oversight Committee, or changes to the BATA Project Complete Baseline approved by the Bay Area Toll Authority Commission.

AT COMPLETION VARIANCE or VARIANCE (cost): The mathematical difference between the Cost Forecast and the Current Approved Budget.

BATA BUDGET: The planned allocation of resources for the Regional Measure 1 Program, or subordinate projects or contracts as authorized by the Bay Area Toll Authority as of June 2005.

BATA PROJECT COMPLETE BASELINE: The planned completion date for the Regional Measure 1 Program or subordinate projects or contracts.

COST FORECAST: The current forecast of all of the costs that are projected to be expended so as to complete the given scope of the program, project, or contract.

COST TO DATE: The actual expenditures incurred by the program, project or contract as of the month and year shown.

CURRENT APPROVED BUDGET: The sum of the AB 144/SB 66 Budget or BATA Budget and Approved Changes.

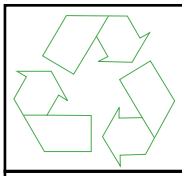
HINGE PIPE BEAMS: Pipes between roadway sections designed to move within their sleeves during expansion or contraction of the decks during minor events, such as changes in temperature. The beams are designed to absorb the energy of an earthquake by deforming in their middle or “fuse” section. Hinge pipe beams are also found at the western piers where the SAS connects to the YBITS (Hinge “K” pipe beams).

PROJECT COMPLETE CURRENT APPROVED SCHEDULE: The sum of the AB 144/SB 66 Project Complete Baseline or BATA Project Complete Baseline and Approved Changes.

PROJECT COMPLETE SCHEDULE FORECAST: The current projected date for the completion of the program, project, or contract.

SCHEDULE VARIANCE or VARIANCE (schedule): The mathematical difference expressed in months between the Project Complete Schedule Forecast and the Project Complete Current Approved Schedule.

% COMPLETE: % Complete is based on an evaluation of progress on the project, expenditures to date, and schedule.



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The information in this report is provided in accordance with California Government code Section 755. This document is one of a series of reports prepared for the Bay Area Toll Authority (BATA)/Metropolitan Transportation Commission (MTC) for the Toll Bridge Seismic Retrofit and Regional Measure 1 Programs. The contract value for the monitoring efforts, technical analysis, and field site works that contribute to these reports, as well as the report preparation and production is $1,574,873.73.

URS Hatch Mott MacDonald
Bay Area Management Consultants
An Association of URS Corporation and Hatch Mott Macdonald

Parallel Wire Strands on North Main Span Looking West towards the Self-Anchored suspension Bridge Tower

TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE
CALTRANS · BAY AREA TOLL AUTHORITY · CALIFORNIA TRANSPORTATION COMMISSION

Memorandum

TO: Toll Bridge Oversight Committee (TBPOC) **DATE:** May 30, 2012

FR: Tony Anziano, Toll Bridge Program Manager, Caltrans

RE: Agenda No. - 4a
Item - Program Issues
Bridge Safety and Security

Recommendation:
For Information Only

Cost:
N/A

Schedule Impacts:
None

Discussion:
There are several efforts underway related to the New East Span safety and security. The Department has been meeting regularly and working closely with the U.S. Coast Guard (USCG) and California Highway Patrol (CHP). Additional agencies that have been involved include the City of San Francisco through the Treasure Island Development Authority (TIDA) and the San Francisco Bay Conservation and Development Commission (BCDC). An overview of these efforts is provided below:

1. New East Span

   A draft and confidential Security Vulnerability Assessment for the new East Span has been prepared by CHP. An overview of this assessment will be provided at the TBPOC meeting.

2. Yerba Buena Island

   Proposed layout for fencing the State right-of-way under the bridge is attached to this memo. Control of access to columns supporting this approach structure has been defined by CHP as a critical element of a security plan. In addition, we are required as part of our commitments to the USCG, to restore access control to the USCG base through fencing. The fence as shown has been designed according to USCG/ CHP recommendations (i.e., reinforced chain link). Additional and/or alternative recommended measures such as a "sand moat" around columns, and/ or bollards and planter boxes are being explored. The current fencing plan does not address public access at E1 at this point; the plan will be modified as E1 plans

evolve. A key step will be developing an agreement with TIDA to assume maintenance and operational responsibility for the E1 platform.

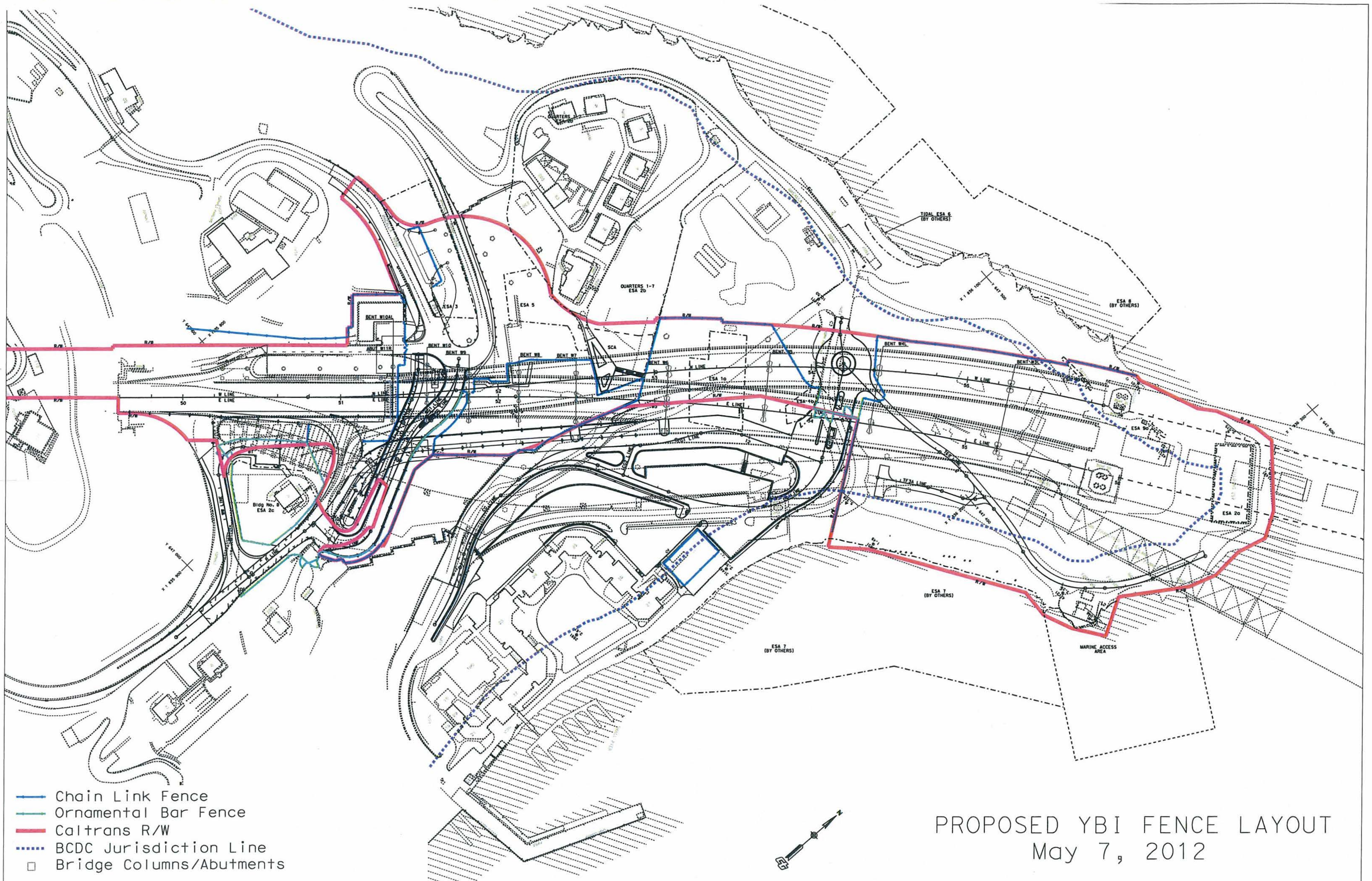
3. Oakland Touchdown

   Key issues at the Oakland Touchdown area include restriction of vehicle access to the Oakland end of the bike path and, similar to YBI, fencing and access restriction under the bridge. Coordination with future Gateway Park project is necessary in developing a plan to address these issues. There are concerns with the potential for a homeless encampment under the structure in addition to general concerns with access to columns supporting this approach structure.

4. Bike path operations, safety and security

   An operations and security plan is being developed to address potential for bike/pedestrian conflict, excessive bike speed, suicide, civil disturbance, operational hours, access during remaining construction and demolition of existing bridge, and law enforcement patrol.

Attachment(s):
YBI Fence Layout, May 7, 2012



Chain Link Fence
Ornamental Bar Fence
Caltrans R/W
BCDC Jurisdiction Line
Bridge Columns/Abutments
PROPOSED YBI FENCE LAYOUT
May 7, 2012

TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS · BAY AREA TOLL AUTHORITY · CALIFORNIA TRANSPORTATION COMMISSION

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC)

DATE: May 30, 2012

FR: Stephen Maller, Deputy Director, CTC

RE: Agenda No. - 4b

Item- Program Issues
Bridge Opening

Recommendation:
For Information Only

Cost:
N/A

Schedule Impacts:
N/A

Discussion:
A verbal update on the New East Span opening activities will be provided at the TBPOC June 6 meeting.

Attachments:
N/A

TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE
CALTRANS · BAY AREA TOLL AUTHORITY · CALIFORNIA TRANSPORTATION COMMISSION

Memorandum

TO: Toll Bridge Oversight Committee (TBPOC) **DATE:** May 30, 2012

FR: Stephen Maller, Deputy Director, CTC

RE: Agenda No. - 4c
Item - Program Issues
Gateway Park – Army Land Transfer Letter

Recommendation:
APPROVAL

Cost:
N/A

Schedule Impacts:
None

Discussion:
Approximately 15 acres of the Gateway Park project involves land that is to be transferred from the U.S. Army to the East Bay Regional Park District. Before this land transfer can occur, the Army is responsible for remediating the site. Based on other similar experience and given the City of Oakland's experience working with the U.S. Army on their portion of the land transfer, this transaction can take several years.

The East Bay Regional Park District has drafted a letter for the Executive Directors of the nine stakeholder agencies comprising the Gateway Park Working Group (GPWG) to sign and then send to the San Francisco Bay Area Congressional Delegation. The letter is seeking assistance from the congressional delegation in making the remediation of the site and transfer to the East Bay Regional Park District a priority for the Army. The TBPOC represents one-third of the GPWG, and staff is requesting your approval of the attached letter.

Attachment(s):
1) Draft Letter to the SF Bay Area Congressional Delegation, May 7, 2012

gatewaypark

JOIN US TO ENVISION GATEWAY PARK

May 30, 2012

TO: MEMBERS OF THE SAN FRANCISCO BAY AREA LEGISLATIVE DELEGATION

Re: Request for assistance in the remediation and transfer of U.S. Army land to allow development of the Gateway Park project located at the new eastern span of the San Francisco-Oakland Bay Bridge

A consortium of nine agencies working together to make Gateway Park a reality requests your assistance in making the remediation of this site and transfer to the East Bay Regional Park District a priority for the Army. We request our federal partners in this effort meet their obligations in a timely manner and ask you to request the Army expedite their remediation and transfer of this property.

Completion of the new eastern span of the Oakland-San Francisco Bay Bridge will soon lead to the dedication and opening of a magnificent new structure around Labor Day of 2013. During the construction of this iconic landmark, a consortium of the following nine agencies has been working on a master plan for the creation of Gateway Park to be located along the Oakland shoreline:

- Bay Area Toll Authority
- California Department of Transportation
- California Transportation Commission
- San Francisco Bay Conservation and Development Commission
- East Bay Regional Park District
- City of Oakland
- Port of Oakland
- East Bay Municipal Utility District
- ABAG Bay Trail

Compromising over 200 acres, the park has been planned with the participation of nearby communities and the general public to incorporate many desirable features including:

- access to the bikeway that is part of the new bridge which connects to Yerba Buena Island
- separated and safe linkages to the Bay Trail and the West Oakland neighborhood
- access to the Bay shoreline with landscaped play and picnic areas
- kayak launch site, fishing pier and interpretive/environmental center
- observation platforms overlooking adjacent Port operations and the Bay
- monumental public art including parts of the original Bay Bridge
- transportation museum featuring the transportation related history of the site
- many other attractive features that will certainly make Gateway Park a destination of regional significance.

Gateway Park c/o Bay Area Toll Authority
101 Eighth Street | Oakland, CA 94607-4700 | 510-817-5988 | contact@baybridgegatewaypark.org
www.baybridgegatewaypark.org

Although park planning has come a long way and will require CEQA processing soon, the remediation and transfer of the current U.S. Army land to the East Bay Regional Park District threatens to delay the implementation of the park project. Once transferred to the District from the Army, the development of the park can begin with an eye toward completion of the first phase in 2018. To achieve this goal, transfer of the property must be completed by mid-2016. We are concerned that over the last six years the Army has yet to develop a plan for the remediation of this site. Currently, available reports indicating the location of contamination show several sites on the upland portions of the property, as well as sites on the bay floor, below water level. Schemes for the remediation of the upland areas through capping and reinforcement of portions of the shoreline seem quite achievable. Remediation of the areas offshore, however, may be problematic and require several years of careful removal and testing. Given this challenge, we can ill afford continued delay in the remediation process.

The consortium of nine agencies working together to make this park a reality requests your assistance in making the remediation of this site and transfer to the East Bay Regional Park District a priority for the Army. The work of the Gateway Park Working Group represents a level of interagency cooperation rarely seen throughout the nation. We request our federal partners in this effort meet their obligations in a timely manner and ask you to request the Army expedite their remediation and transfer of this property. Please feel free to contact us if you need additional information.

Most sincerely,

Steve Heminger
Executive Director, BATA/ MTC

Malcolm Dougherty
Director, Caltrans

Bimla Rhinehart
Executive Director, CTC

Robert E. Doyle
General Manager, EBRPD

NAME
Executive Director, BCDC

Mayor Jean Quan (or Fred Blackwell)
City of Oakland

Omar Benjamin
Executive Director, Port of Oakland

NAME
Executive Director, EBMUD

NAME
Executive Director, ABAG

TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS · BAY AREA TOLL AUTHORITY · CALIFORNIA TRANSPORTATION COMMISSION

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** May 30, 2012

FR: Tony Anziano, Toll Bridge Program Manager, Caltrans

RE: Agenda No. - 4d

Item- Program Issues
Foundation Inspections Update

Recommendation:
For Information Only

Cost:
N/A

Schedule Impacts:
N/A

Discussion:
A verbal update on the foundation inspections performed on the Richmond Bridge, Benicia Bridge and West Span projects will be provided at the TBPOC June 6 meeting.

Attachments:
N/A

TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE
CALTRANS · BAY AREA TOLL AUTHORITY · CALIFORNIA TRANSPORTATION COMMISSION

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** May 30, 2012

FR: Tony Anziano – Toll Bridge Program Manager, Caltrans

RE: Agenda No. - 5a
Item- San Francisco-Oakland Bay Bridge Updates
Corridor Update / Schedule

Recommendation:
For Information Only

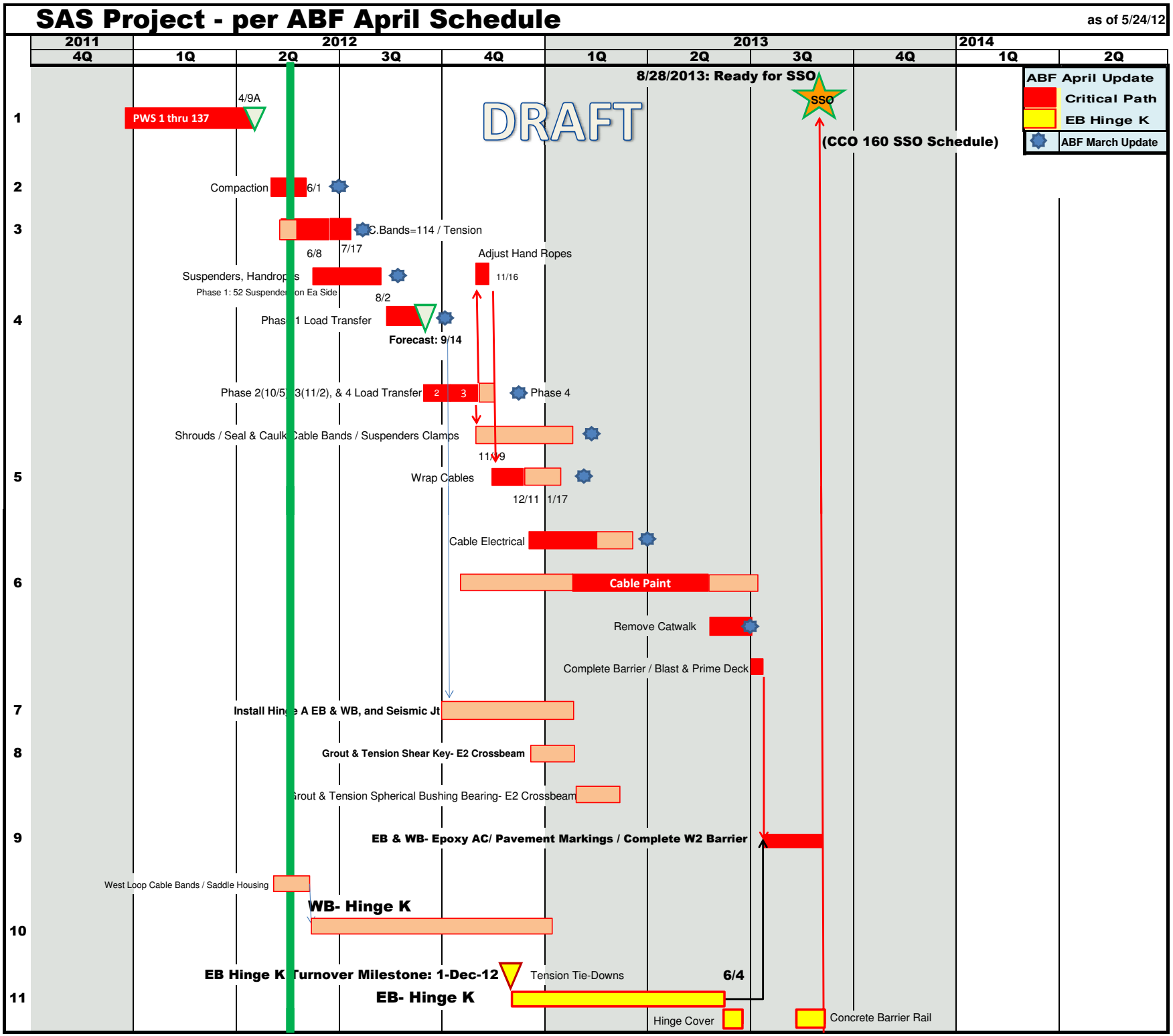
Cost:
N/A

Schedule Impacts:
N/A

Discussion:
A verbal corridor update will be provided at the TBPOC meeting on June 6, 2012.

Attached are summary schedules for reference and further discussion at the meeting.

Attachment(s):
1. SAS Project – per ABF March Schedule (Level 2 Summary)
2. Toll Bridge Seismic Retrofit Program – Summary Schedule (SSO)


SAS Project - per ABF April Schedule
as of 5/24/12
2011
2012
2013
2014
4Q
1Q
2Q
3Q
4Q
1Q
2Q
3Q
4Q
1Q
2Q
8/28/2013: Ready for SSO
SSO
(CCO 160 SSO Schedule)
ABF April Update
Critical Path
EB Hinge K
ABF March Update
DRAFT
1
4/9A
PWS 1 thru 137
2
Compaction
6/1
3
C.Bands=114 / Tension
6/8
7/17
Adjust Hand Ropes
11/16
Suspenders, Handropes
Phase 1: 52 Suspenders on Ea Side
8/2
4
Phase 1 Load Transfer
Forecast: 9/14
Phase 2(10/5), 3(11/2), & 4 Load Transfer
2
3
Phase 4
Shrouds / Seal & Caulk Cable Bands / Suspenders Clamps
11/9
5
Wrap Cables
12/11
1/17
Cable Electrical
6
Cable Paint
Remove Catwalk
Complete Barrier / Blast & Prime Deck
7
Install Hinge A EB & WB, and Seismic Jt
8
Grout & Tension Shear Key- E2 Crossbeam
Grout & Tension Spherical Bushing Bearing- E2 Crossbeam
9
EB & WB- Epoxy AC/ Pavement Markings / Complete W2 Barrier
West Loop Cable Bands / Saddle Housing
WB- Hinge K
10
EB Hinge K Turnover Milestone: 1-Dec-12
Tension Tie-Downs
6/4
11
EB- Hinge K
Hinge Cover
Concrete Barrier Rail

Toll Bridge Seismic Retrofit Program - Summary Schedule (SSO)

Update as of 5/24/2012

2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017

4Q | 1Q | 2Q | 3Q | 4Q | 1Q | 2Q | 3Q | 4Q | 1Q | 2Q | 3Q | 4Q | 1Q | 2Q | 3Q | 4Q | 1Q | 2Q | 3Q | 4Q | June

SFOBB - SSO - Labor Day 2013 Schedule

1 YBITS 1 Project- EA 04-0120S4 (Bid: 15-Dec-09, NTP 23-Feb-10)

SSO * Note: Beneficiary Use

SSO Ready

Frames 1 (WB & EB) | RW 50A / Temp. EB On-Ramp

WB | EB

Frames 2 Ready for Hinge K | YBITS 1 Contract Completion

2 SAS Project - EA 04-0120F4 (Bid: 22-Mar-06, NTP 18-May-06)

WB | EB

Hinge K Closure Pour (WB & EB)

Cable Compaction | Ph 4 L.T.

C. Bands /Tension | Ph 3 L.T. | Hand Rope / Wrapping/ Suspenders Clamps

Suspenders /Clamps | Ph 2 L.T. | Cable Electrical

Ph 1 Load Transfer | Paint Cable

SSO Ready

Complete PWS | 9/14 | 11/2

PWS Strands 1 - 137 | SAS Contract Completion

3 OTD Detour - EA 04-0120S4

Open Temp. WB Lanes

Ph 1 Load Transfer | Ph 3 Load Transfer

4 OTD2 Project - EA 04-0120M4

Re - ADV | Bid | Award | 5/1: Approval

3/12 | 3/21 | 3/29A | 6/25: 1st Working Day

SSO Ready

OTD 2 Construction | OTD 2 Contract Completion

11/11/12 | Final Striping

SFOBB Bike Path

1 2 3 4 5 6

OTD 2- Bike Path

Segment 3- Open Bike Path

250 W. Days

Open OTD2 Temp. Bike Path

Open OTD2 Permanent Bike Path

Open YBITS Bike Path

A+B Contract Variations

100 W. Days

Segment 2- Bike Path

SFOBB - Dismantling Contracts

5 YBITS 2+ Cant. Dismantling - EA 04-0120T4

Permit: 27-Feb-12 | ADV | Outreach | Bid | Award | 1st Charged Day

Environmental | 4/9 | 6/14 | 9/25 | 11/24 | 2/2

HQ 11/14 | RTL 3/12

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Cantilever Dismantling | A+B Contract Variations | Contract Completion

* DRAFT- Contractor to Provide Construction Sequence

YBID Removal

Ramp / SG Road /Landing /Bike Path

6 504 & 288 Dismantling - Steel Only

DRAFT

Dismantling - Steel (Draft)

7 All Foundations Removal

DRAFT

Dismantling - Foundations (Draft)

Antioch & Dumbarton Bridge

8 Antioch Bridge - EA 04-1A5214 (Bid: 10-Mar-10, NTP: 19-May-10)

SSO

9 Dumbarton Bridge - EA 04-1A5224 (Bid: 15-Jun-10, NTP: 26-Aug-10)

SSO

Events

DRAFT

Major Schedule Changes Since Last Update are Highlighted below in Yellow

YBITS 1 Project

1 *Complete WB Frame 1 Concrete Pour: 16-Dec-11 A*
2 *WB Frame 2 Stressing Complete : 27-Jan-12A*
3 Start EB Frame 2 Rebar: March 2012
4 ***WB Hinge K Turnover Milestone: 1-May-12A***
5 EB Hinge K Turnover Milestone: 26-Nov-12
6 WB & EB SSO Ready: 14-Jul-13 (Max Incentive)

SAS Project (ABF April CPM Schedule)

1 *Start PWS: 21-Dec-11 A*
2 *Complete PWS: **9-Apr-12A***
3 Complete Cable Compaction : 1-Jun-2012
4 Complete Tension Cable Bands: 17-Jul-12
5 Complete Suspenders & Handropes: 2-Aug-12
6 Phase 1 Load Transfer: 14-Sep-12
7 Phase 2 & 3 Load Transfer: 2-Nov-12
8 *WB Hinge K Turnover Milestone: 1-May-12A*
9 EB Hinge K Turnover Milestone: 1-Dec-12
10 WB & EB SSO Ready: 28-Aug-13 (Max Incentive)

OTD Detour Project

1 *EB Detour Traffic Switch: 29-May-11 A*
2 ***WB Detour Traffic Switch: 19-Feb-12A***

OTD2 Project

1 ***Advertise: 7-Nov-2011 A***
2 ***Bid Opening: 18-Jan-2012A***
3 *Re-Advertise: 12-Mar-12A*
4 *Bid Opening: 21-Mar-12A*
5 *Award: 29-Mar-12A*
6 ***Approval: 1-May-12A***
7 1st Working Day: 25-Jun-12

* Low Bidder FWI 140 days

Segment 2 Bike Path

1 *Advertise: 12-Mar-2012A*
2 ***Bid Opening: 1-May-2012A***
3 Award: TBD
4 Start Construction: 22-Aug-2012

* Low Bidder Top Grade, 100 days , Max. B value 300 days

YBITS 2 + Cantilever Dismantling Project

1 *Receive Biological Opinion : 6-Feb-12A*
2 *BCDC Commission Meeting: 2-Feb-12A*
3 *Permits: 27-Feb-12A, List: 12-Mar-12A*
4 ***Advertise: 9-Apr-12A***
5 Bid Opening: 25-Sep-12
6 **Contractor to Provide Construction Sequence**

504 & 288 Contracts:

Two Contracts

A. Remove 504 & 288 Steel Only
B. Remove All Foundations

Antioch Project

SSO : *Apr 2012A*, Contract Completion: 11-Jul-12

Dumbarton Bridge

Replace 1st Joint: Memorial day week-end Closure

TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS · BAY AREA TOLL AUTHORITY · CALIFORNIA TRANSPORTATION COMMISSION

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** May 30, 2012

FR: Mike Forner, Principal Transportation Engineer, Caltrans

RE: Agenda No. - 6a

Item- Antioch/ Dumbarton Bridge Seismic Retrofit Updates

Recommendation:
For Information Only

Cost:
N/A

Schedule Impacts:
N/A

Discussion:

<u>Antioch Bridge:</u>

- Time Elapsed: 94%
- Work Completed: 96%
- Remaining contingency and supplemental fund balance is $1.6 million

Update of ongoing field work is as follows:

- Thirty-two (32) of 32 suspended platforms removed.
- Stair towers removed at 30 of 30 piers.
- All seismic safety structural work completed April 12, 2012.
- Methacrylate top of footings at Pier 22 – 38 100% complete.
- Landscaping and plant establishment at south end of bridge, 100% complete.
- Contractor began temporary road removal on Sherman Island May 15, 2012 and is 25% complete.
- CCO for repair paving at north and south end of the Antioch Bridge is scheduled to begin June 11, 2012.

Dumbarton Bridge:

- Time Elapsed: 71%
- Work Completed: 74%
- Remaining contingency: $0.93 million

Update of ongoing field work is as follows:

- Pumping plant concrete is 95% complete, mechanical and electrical work is ongoing.
- Installation of the 36-inch drainage pipe at the NW frontage road is complete.
- Deck access openings are complete. Access openings are recessed and smooth for the driving public.
- Installation of access platforms at Piers 16 thru 31 is complete
- Concrete coring operation is 100% complete. Pier 31 has yet to be grouted.
- Pier cap widening has been completed at 15 of the 16 piers.
- Structural steel jacking frames: 11 of 16 are complete; work is ongoing at all remaining 5 locations.
- Fabrication of the Channel Assembly, permanent deck plates and the steel barrier at Pier No. 31 are ongoing.
- Sole plate installation is ongoing at 7 of 14 locations.
- Pier footing work is complete at Piers 17 through 22, and at 25 through 30.
- Fender system retrofit at Piers 23 and 24 is 75% complete.
- EPS bearing fabrication is completed; 96 bearings have been tested and accepted at EPS facility. The set of 9 bearings has been tested and approved at UCSD, December 5-9, 2011.
- Ravenswood pier pile repair has completed. Fishing pier removal is ongoing.
- Installation of the bearings at the main span piers has been resolved. The Department has decided to go with a modified Option 1. Option 1, modified requires the use of 100-ton jacks to add additional support during the lifting of the bridge. This option is estimated at $500K and will not delay the construction schedule.
- The Department installed additional strain gauges at Pier 23. The trial lift was completed on April 29, 2012 to verify stress during the bridge jacking operation.
- Jack installation at Piers 17 to 22 is completed. The Bridge is jacked at Pier No. 16 (5″), 17 (4″), 18 (3″), 19 (2″), and 20 (1″).
- The 79-hr Bridge closure to install the new seismic joint at Pier 16 was completed over the Memorial Day weekend. The Dumbarton Bridge was open to traffic at 3:00 AM, two hours ahead of schedule.

ITEM 7: OTHER BUSINESS

No Attachments